

Vol. LXXXV, No. 12

Chicago, Ill., U. S. A., December 25, 1940

Price \$2.00 Per Year, 25 Cents Per Copy

GRAIN & FEED JOURNALS CONSOLIDATED

A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter



Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

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Grain & Feed Journals Consolidated, a merger of Grain Dealers Journal (Est. 1898), American Elevator & Grain Trade (Est. 1882), Grain World (Est. 1928), and Price-Current-Grain Reporter (Est. 1844). Published on the 2nd and 4th Wednesday of each month in the interest of progressive wholesalers in grain, feed and field seed. 332 South La Salle Street, Chicago, Illinois, U. S. A. Price \$2.00 per year, 25c per copy. Entered as second class matter November 27, 1930, at the Post Office at Chicago, Ill., under the act of March 3, 1879, Vol. LXXXV, No. 12, December 25, 1940.

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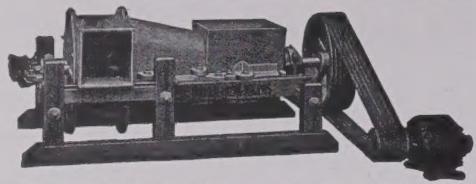
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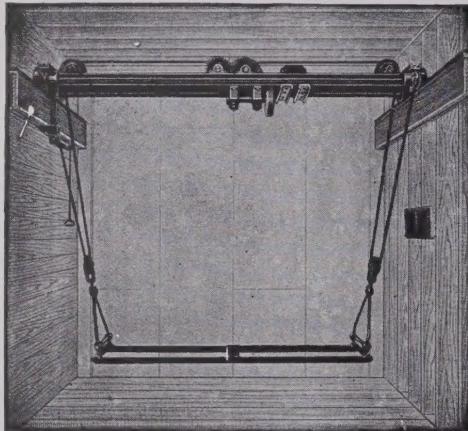
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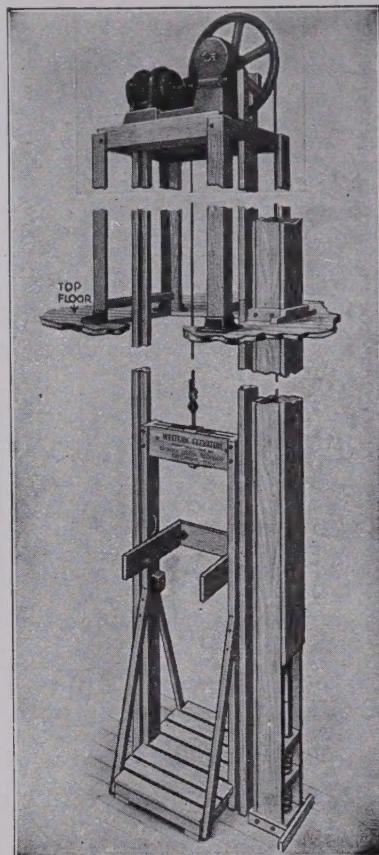
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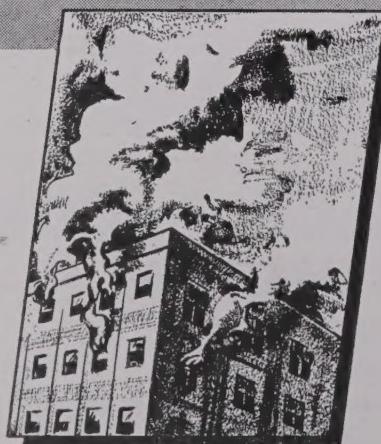
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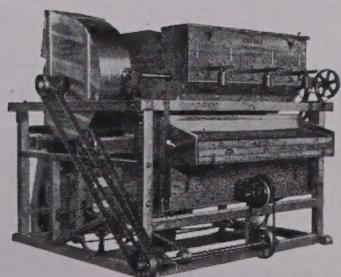
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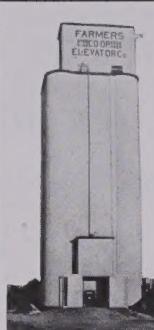
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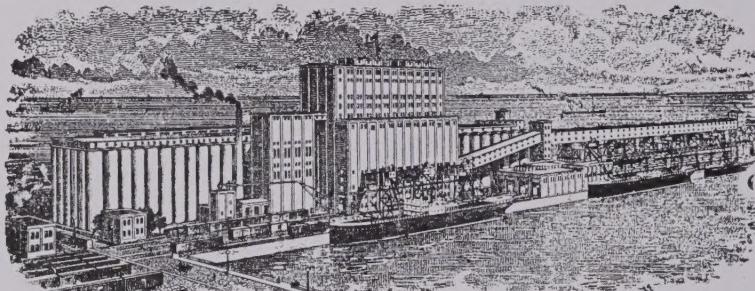
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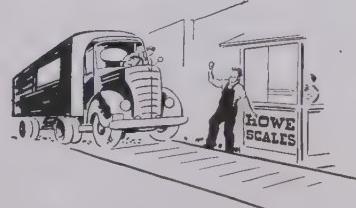
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BARGAIN IF TAKEN AT ONCE—Some one is always looking for an elevator at a good grain point and reads these ads just like you're doing now, so if you wish to dispose of your present property, enlarge your present interests, or embark in the grain business, USE these columns to your best advantage just as others are doing. WE WILL assist you in the composition of copy free. We are in business to be of service to YOU. There is no wrong time to put an ad in the columns of the Journal. TRY IT.

SAMPLE PANS



Formed by bending sheet aluminum, reinforced around top edge with copper wire. Strong, light, durable. The dull, non-reflecting surface of aluminum will not rust or tarnish; assists users to judge of the color and to detect impurities.

Grain Size, $2\frac{1}{2} \times 12 \times 16\frac{1}{2}$, \$2.00;
Seed Size, $1\frac{1}{2} \times 9 \times 11$, \$1.65, at Chicago.

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WANT—Position as bookkeeper and stenographer in grain business; have had 15 years' experience; best of references. Address 85T8, Grain & Feed Journals, Chicago.

COWPEAS WANTED

COWPEAS WANTED—Indiana and Illinois grown cowpeas wanted direct from country shippers; advise quantity available. No brokers. Address 85Y4, Grain & Feed Journals, Chicago.

Leaking Car Report Blanks

bear a reproduction of a box car and a form showing all points at which a car might leak, thus facilitating reporting specific places where car showed leaks at destination. One of these blanks should be sent with papers for each car with the request that it be properly filled out and returned in case of any signs of leakage. Printed on Goldenrod bond, size $5\frac{1}{2} \times 8\frac{1}{2}$ inches, and put up in pads of 50 blanks. Order Form 5. Weight, 3 ounces. Price, 40¢ a pad; four for \$1.00. Prices f. o. b. Chicago.

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Shippers' Certificate of Weight

for use in advising receivers of the amount and grade of grain loaded into a car. Especially adapted for filing claims for Loss of Weight in Transit. Each certificate gives: "Kind of scale used; Station; Car Number and Initials; Shipper's Name; lbs. equal to—bus. of No. —; Date scales were tested and by whom; car thoroughly examined and found to be in good condition and properly sealed when delivered to the ——R. R. Co.; Seal Record, name and number, sides and ends; marked capacity of car; date; name of the weigher." On back is a form for recording the weight of each draught.

Printed and numbered in duplicate. Originals on Goldenrod Bond; duplicates on tough pink manila in two colors of ink. Well bound with heavy hinged pressboard covers. 75 originals, 75 duplicates and four sheets of carbon paper. Size $4\frac{1}{2} \times 4\frac{1}{4}$ inches. Weight 11 ozs.

Order No. 89 SWC.

Price \$1.00, plus postage

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that will assist it to avoid the snares and pitfalls of new trade highways. Send it the convictions, suggestions and experiences of your brother grain dealers twice each month by subscribing to

Grain & Feed Journals Consolidated
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Gentlemen:—In order that I may profit by the experience of others in the grain trade, please send me the Grain & Feed Journals Consolidated twice each month. Enclosed find Two Dollars to pay for one year.

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Capacity of Elevator..... Post Office.....
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MACHINES FOR SALE

CORN CUTTER & Grader—has motor—used very little. 84G5, Grain & Feed Journals, Chicago.

HAMMER MILL with 25-h.p. motor and all attachments. Priced to sell. Write 84G8, Grain & Feed Journals, Chicago, Ill.

GOOD new Standard Cleaner for sale, No. 132, 3 screens; has been used only 15 months. J. C. Phillips, Star City, Indiana.

FEED MIXER for sale, has motor, and a late machine. Need space. Will sacrifice. Write 84G6, Grain & Feed Journals, Chicago, Ill.

MONARCH Attrition Mill 22", two direct connected motors 15 h.p., 440 volt, new runner head, arm and shaft, new plates, very reasonably priced. Address 85T5, Grain & Feed Journals, Chicago.

SCREW CONVEYOR, 2500', 12", 9", steel casting, excellent condition, from liquidation of large plant located near Sandusky, Ohio. Consolidated Products Co., Inc., Box 545, Sandusky, Ohio.

SELL YOUR SECOND HAND Machines Now—tomorrow they will not be worth as much as they are today. A shiny machine which has just been in operation sells quicker and brings a bigger price than a dirty, rusty one.

ONE No. 10 Forster Grain Scourer in fine condition; one 39 h.p. Caterpillar power unit equipped for gasoline or natural gas in perfect running order. R. L. Groseclose, Box 804, Lewisburg, West Virginia.

WE HAVE A. C. motors $\frac{1}{4}$ h.p. to 60 h.p., shafting, hangers, pulleys, belting, bucket elevators, screw conveyors, elevator legs, heads and boots; galvanized iron bins and hoppers, reels, scalpers, aspirators, roller mills, grinders 20 ton Columbia Scale; 12' Howe batch mixer and other machinery. At sacrifice prices. Mill Equipment Co., 319 W. Chicago Ave., Chicago, Ill.

MACHINES FOR SALE

FEED MIXER—one ton—floor level feed—has motor—good as new. Write 84G7, Grain & Feed Journals, Chicago, Ill.

FOR QUICK SALE—Used 32" Double Runner Sprout-Waldron Attrition Mill, 2-40 h.p. Westinghouse Motors—3/60/220-440 volts; complete electrical controls, \$850.00 f.o.b. cars Iowa shipping point. In good condition. J. C. Kintz, Cedar Rapids, Iowa.

ONE direct connected 60 h.p. Miracle Ace Hammer Mill, bargain for quick sale; one 24" Monarch double head attrition mill ball bearing direct connected to two 20 h.p. motors; one 20" Monarch double head ball bearing attrition mill direct connected to two 15 h.p. motors; two 99 Clipper Dustless Cleaners with traveling brushes and variable speed drive. D. E. Hughes Co., Hopkins, Mich.

Daily MARKET RECORD

A boon to the grain dealer who keeps a convenient, permanent record of daily market quotations for ready reference.

This book provides space for recording hourly Board of Trade radio or CND quotations for Wheat, Corn, Oats, Rye, and Barley. Spaces for a week's markets on a sheet; sixty sheets, size $9\frac{1}{2} \times 11\frac{1}{2}$ inches, in a book. Well bound in tough pressboard. Shipping weight one pound. Order Form CND 97-5, Price \$1, plus postage.

Grain & Feed Journals
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332 S. La Salle St. Chicago, Ill.

MACHINES WANTED

POWER grain shovel, quote lowest cash price and give location. Reinders Bros., Elm Grove, Wis.

WANTED—Hess Grain Drier; size 4, 5 or 6. Must be in good condition and cheap for cash. Address 85X2, Grain & Feed Journals, Chicago.

MOTORS—GENERATORS ELECTRICAL MACHINERY

Large stock of motors and generators, A.C. and D.C., new and rebuilt, at attractive prices. Special bargains in hammermill motors, 25 to 100 H.P. 1200 to 3600 R.P.M. Write for stock list and prices. Expert repair service. V. M. NUSSBAUM & CO., Fort Wayne, Indiana.

THE WANTED-FOR SALE DEPARTMENT of GRAIN & FEED JOURNALS is a market place where buyer and seller, employer and employee, and those offering investments can meet to their mutual advantage and profit and it will pay every subscriber to give these columns a close study twice each month, because of the constantly changing variety of opportunities seeking your consideration.

MOTOR-PUMPS: Guaranteed rebuilt electric motors, pumps, etc. Largest stock in Illinois, outside of Chicago. Will take your equipment in trade; also offer emergency motor repair and rewinding service. Distributors for Wagner and Peerless motors, specially adapted for farm and grain elevator application. We offer free engineering advice on your problems. Write us without obligation. New illustrated bulletin No. 23, just off the press, will be mailed on request. Rockford Power Machinery Co., 6th Ave. and 6th St., Rockford, Ill.

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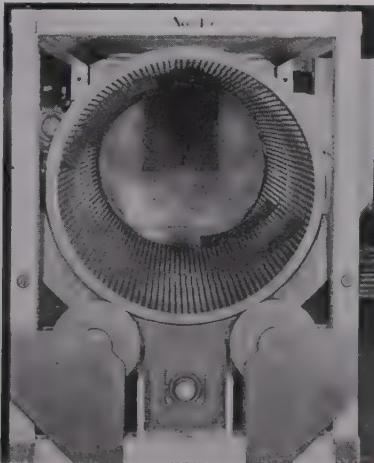
SAMPLE ENVELOPES—SPEAR SAFETY—for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable; size $4\frac{1}{2} \times 7$ inches, \$2.35 per hundred, or 500, \$10.00 plus postage. Sample mailed on request. Grain & Feed Journals, 332 S. La Salle St., Chicago, Ill.

The Sidney REVOLVING CORN CLEANER

separates corn from cobs and husks

Machine picked corn is no longer a problem to the grain elevator. With the Sidney Revolving Corn Cleaner you get all the available corn. This cleaner beats the husks, and efficiently removes all the corn. No corn passes out with the husks and cobs. Made in several sizes, either motor or belt driven. Operates on roller bearings.

Write for complete details on this and other Sidney equipment for grain elevators, feed and flour mills.



The Sidney Grain Machinery Co.
Sidney, Ohio



Hands off! . . . because there's no need to touch a Richardson Automatic Grain Scale during operation. It is self-compensating for all variations in specific gravity, and prints its own record of operation. Hands Off! . . . because, when you eliminate human labor, you eliminate human error, the greatest source of inaccuracy. Hands Off! . . . because when you eliminate human labor you reduce the cost of weighing.

Richardson Automatic Grain Shipping and Receiving Scales are equal arm balance scales, employing standard sealed test weights, and built to last a lifetime. Scales are built in sizes to meet your elevating or loading capacity. Write for Catalog G 1219.

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RICHARDSON SCALE COMPANY, CLIFTON, N. J.

PEORIA

Located in the very center of Illinois' great corn and oats producing territory, Peoria has several of the largest corn consuming industries in the United States, including corn products, mixed feeds, and distillery products. This market also has favorable freight rates to the Gulf and Southeastern territory, which give the Peoria grain merchants unlimited facilities for grain distribution.

So great is the demand, that Iowa and Missouri find their best market here at times and large quantities of corn move to this great Gateway from these states. Owing to the comparatively short haul to Peoria, railroads move this Peoria grain in much shorter time than to other terminals, insuring quicker returns.

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GRAIN & FEED JOURNALS

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332 S. La Salle St., Chicago, Ill., U.S.A.
Charles S. Clark, Manager

A merger of
GRAIN DEALERS JOURNAL
Established 1898

**AMERICAN ELEVATOR &
GRAIN TRADE**
Established 1882

THE GRAIN WORLD
Established 1928

PRICE CURRENT - GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improving of grain, feeds and seeds.

SUBSCRIPTION RATES to United States, Canada and countries within the 8th Postal Zone, semi-monthly, one year, cash with order, \$2.00; single copy current issue, 25c.

To Foreign Countries, prepayd, one year, \$3.00.

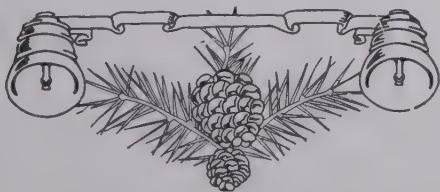
THE ADVERTISING value of the Grain & Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaving grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, ILL, DECEMBER 25, 1940



Christmas Shopping

They were doing their Christmas shopping

As other poor babies shop;

Roaming along, then stopping

As other poor babies stop.

The dingiest stores of the street,

With the dullest of window-lights,

Seemed a fairyland fair to greet,

To the two little thin clad mites.

They stopped in front of a painting

That told of a wondrous morn,

And pictured the little Manger

Where the Babe of the World was born.

Said one little girl to the other

As she clung to her shabby hat;

"I wish that my baby brother

Could have a nice bed like that!"

William F. Kirk.



COUNTRY grain buyers who accept grain from strangers owe it to themselves to learn the legal owner before paying for the grain. A tenant or night prowler who delivers grain without first obtaining title thereto is not only court-ing trouble for himself but also for the buyer.

ONE OF THE time saving conveniences now making its appearance in country elevators is the two way telephone which facilitates easy communication between the elevator manager and any of the workmen about the plant. This de-vice not only saves many steps and much time but it expedites service in all de-partments.

THE INCENDIARIES, father and son, who confessed to the burning of the feed mill and elevator of the Advance (Mo.) Milling Co., have finally been sentenced to the penitentiary. No reason for starting the fire has yet been disclosed. Why so many mysterious fires occur at night is explained only by the unsolved causes which lead pyromaniacs to burn the property of others.

THE FARMERS are getting the spec-ulative habit by storing and borrowing easy government money. On Dec. 17 they had 267,576,156 bushels of wheat in store on which they had borrowed \$193,266,-653; 6,921,840 bushels of barley, on which they had borrowed \$2,207,696, and 3,801,076 bushels of rye on which they had borrowed \$1,428,567 as well as over 700,000,000 bushels of corn. The ques-tion is will the grain growers stop bor-rowing and speculating when easy money is no longer obtainable?

WHILE the grain exporting nations of North and South America have a super-abundance of food and can spare more than enough to assuage the hunger of suffering Europe, the warring nations refuse to permit shipments overseas. The supply of ocean-going freight vessels is being reduced at an alarming rate, but if peace comes before all are destroyed the rush of cargoes from North America will soon relieve the famine. In the meantime North American markets are congested and values vacillate uncer-tainly.

THE PROPOSAL of the Department of Agriculture to establish an office at Chicago to disseminate agricultural market information thru the press and by radio will bear close study lest it turn out to be an avenue for propaganda, or an attempt to supplant private news agencies now giving service satisfactory to growers, distributors and consumers, without cost to the taxpayers. The ex-perienced grain receivers, brokers and commission merchants who have devoted their lives to the grain business are in far better position to correctly advise their customers than any burocrat.

THE GRAIN OFFICE stove has long been a potent factor in increasing the number of fire losses principally because with the arrival of zero temperatures, the elevator manager fills up the stove, turns on the draft and goes out to the elevator forgetting that the simulated combustion in his office is likely to extend to the office itself.

ONE of the encouraging developments in feed grinding has been the change in the character of the elevator's business when the railroad on which it depended for transportation is abandoned. The development of desirable lines of feed-stuffs and the promotion of side line sales through the development of truck-ing service has made some elevator oper-ators independent of rail transportation.

OPEN DRIVEWAYS catch much dirt as well as all the wind and frequently invite trespassers to inspect the plant. The advantages of installing driveway doors that can be easily closed and locked is finding favor with elevator operators generally and some are installing electrically operated rolling doors which can be closed or opened without a struggle. Such doors save time and la-bor and help to protect the property from midnight marauders.

THE LOWER QUALITY of 1940 corn has brought many disappointments to hasty shippers. Much corn was blown down by the heavy wind of Armistice Day and receipts have been showing ex-cessive moisture. The percentage of damage and excess moisture in Novem-ber receipts is clearly reflected in 46 per cent of the receipts in primary markets grading No. 4 or lower. Only 6 per cent of the November, 1939, receipts graded No. 4.

AS CHRISTMAS with its kindly at-titude and friendly spirit draws all men closer together and promotes thought-ful consideration for the happiness of one another, the staff of the GRAIN AND FEED JOURNALS Consolidated is glad to wish its friends and patrons an abun-dant opportunity to promote their busi-ness with pleasure and profit and with-out unreasonable burocratic domination. May all have a Merry Christmas and a Prosperous New Year.

PRESUMABLY TRUCKS and truck-ers are still in ill-repute with grain dealers. But we notice one large line company has written its agents in Iowa to the effect: "Ship if you have to, but be sure to hold a good surplus back for the truckers." Maybe heavy stocks of C.C.C. corn in steel bins, in country elevators, and in terminals, have some-thing to do with this order. Anyway, some elevator managers complain that the trucker demand is not as great as it was. Truckers apparently are able to buy their supplies nearer home.

The GRAIN DEALERS JOURNAL

CORN HUSKS and cobs have long added greatly to the fire hazards of elevators handling ear corn. Shocks become tightly wound about cleaner shafts and readily respond to friction resulting in fire and often in destruction of the plant.

THE ESTABLISHMENT of an arbitration commission of seven members is the latest recognition of the value of commercial arbitration in the settlement of misunderstandings and disputes between merchants. The grain trade adopted the arbitration feature of association work at its Des Moines convention in 1902, and now great advantages are claimed for arbitration in the settlement of commercial differences through the supervision of the American Arbitration Association. This method of settling trade differences has prevented long drawn out court proceedings as well as heavy attorneys' fees and generally resulted in an equitable adjustment of trade differences to the satisfaction of both parties to the dispute. Although the pioneer in the arbitration method of settling trade differences, the grain trade has profited most satisfactorily.

Exchanges as Aids in Distribution

The special com'ite recently appointed by the Chicago Board of Trade to study the government's various farm programs and to determine whether the withholding of grain from markets due to loans, or the sale of such surpluses is actually benefiting the farmer, has an opportunity to be of real service to legislators at Washington.

Unquestionably the lawmakers desire to aid the tillers of the soil; and, if shown, will promptly abandon misguided policies of no benefit and enact sane legislation in its place.

The com'ite's work will be fact-finding, not argumentative. A questionnaire will be sent out to those using Board of Trade facilities, who naturally are best informed as to the value of its services, inquiring as to the adequacy of the market under present existing control.

If the inquiry is broad enough and directed to a great number of individuals, who may be classified later as to the sufficiency of their knowledge of merchandising to be qualified to sit as judges, its value will be greatly enhanced.

In the past forty years there have been congressional and Federal Trade Commission investigations without number, and in Canada the Turgeon Commission had its predecessors; but this new effort may be more influential in guiding congressional action by partaking more of the nature of the Gallup poll, lawmakers being always keen with their ears to the ground to discover any veering in the trend of public sentiment.

Grades Need Adjustment to Commercial Changes

As grown in the field a moderate amount of thin kernels may be found in a sample of rye and passed on to the processors by the inspectors after grading as No. 1, 2, 3, or 4, without serious objections from the buyer.

When a carload of what was expected to be good No. 2 or No. 3 rye is found to contain an inordinate quantity of thin kernels there is reason for complaint.

Grinding thin rye cuts down the output of the flour mill and the product lacks quality.

If buyers are to be persuaded to buy rye by grade alone they must be assured of delivery as expected.

Plump rye commands a higher price in the markets, and in recent years there has come into use in terminal markets very efficient machinery for separating kernels of any grain by size, resulting in the separation of thin kernels from country run rye. These thin kernels can be mixed into other rye and shipped to central markets having a trade in futures, for delivery on contract. The grain inspectors could readily make the required separation by the small chess sieve and grade accordingly as "plump," or "thin," preventing the tender of thin rye where ordinary rye was expected.

While several hearings on the proposed changes in rye grades have been held, little opposition has been presented to what seems to be a real improvement. In fact, the test made on representative samples of rye received in central markets during the marketing of the 1938, 1939 and 1940 crops showed that 80 per cent of the receipts for these years would have been graded rye under the new rules.

Most of the rye coming from country points has graded rye and only 10 per cent of the receipts has graded thin rye and 10 per cent has graded Plump Rye under the proposed new rules which provide that all rye containing not more than 5 per cent of thin kernels would be designated plump while every lot of rye containing over 20 per cent of the thin kernels would be classified as Thin Rye as provided by the following rule:

Plump Rye.—Rye which meets the requirements for any of the grades from No. 1 to Sample grade, inclusive, and which, when free from dockage, *does not* contain more than 5 percent of rye and other matter that will pass through a 20-gage metal sieve with slotted perforations .064 inch wide by $\frac{3}{8}$ inch long shall be classified as "plump" rye. For such rye the word "Plump" shall be added to, and made a part of, the grade designation. (Example, "No. 1 Plump Rye.")

Thin Rye.—Rye which meets the requirements for any of the grades from No. 1 to Sample grade, inclusive, and which, when free from dockage, contains more than 20 percent of rye and other matter that will pass through the slotted sieve described above shall be classified as "thin" rye. For such rye the word "Thin" shall be added to,

and made a part of, the grade designation. (Example, "No. 1 Rye, Thin.")

The sizing machines are directly responsible for the removal of the thin kernels which makes the plump rye of much greater value to the miller or processor because the plump kernels contain much more starch; however, no change will be made in the grading of rye until the 1941 crop starts to market and dealers who find objections to the proposed changes should immediately communicate with the Secretary of Agriculture so that objections can be fully considered before the new rules are announced. The law requires the Secretary to give ninety days' notice of change in the rules governing the grading and it is not likely any other changes would be made on the 1941 crop after the Secretary announces the new grading rules.

Getting Value for Columbia Oats

The hearings by the U. S. Department of Agriculture on the proposed creation of a new grade of "Special Red Oats" have brought out the fact that the country elevator operator pays full value for the Columbia oat, only to suffer 2 or 3 cents loss when resold at the terminal.

The Columbia, which originated in Missouri, is a big yielder in Illinois and Indiana, and has other qualities making it most profitable for the farmer. It has become very popular, and its production should be encouraged.

Until the new grade of "Special Red" is established the country elevator operator may be able to realize more by keeping the Columbia in a separate bin, instead of mixing them with other oats and necessarily taking the grade of "Mixed Oats" at terminal markets.

Burocracy Still Needs the Bit

Failure to pass the Logan-Walter bill over the Presidential veto must not be taken as a license to the bureaucracy to run wild.

Out of the hundreds of rulings made by the Labor Board the few rank decisions were enough to get the bill thru Congress in 1940. Just a few more rotten rulings and the vote on the measure, when and if reintroduced, can be expected to pile up over the veto.

Certain it is that the question whether we are to be ruled by law or by whim will not down. There is nothing silly about the assertion of the Merchants and Manufacturers Ass'n of Los Angeles Dec. 15 that the findings of a trial examiner showed "Bias beyond control, stupidity beyond reason, or a deliberate attempt at mendacity."

Those who are battling for court review of burocratic rulings, are fighting right here in America to prevent a sneaking imposition of Hitlerian dictatorship on free-born Americans.

Application of Workmen's Compensation Act.

Clarence Trenhaile, a married man, 58 years of age, was employed by the Quaker Oats Co. to operate its elevator at Sheldon, Ia. He bought grain, but was informed daily what price he could pay. He unloaded the grain, took care of the elevator, sold coal, collected bills and when necessary was authorized to hire additional help.

While acting in the scope of his employment he was injured Mar. 1, 1937; and on May 19, 1937, a memorandum of agreement was entered into between him as employee and the company as employer, providing for the payment of a certain amount weekly. July 1, he went back to work and continued to work until July 1, 1938.

On Oct. 10, 1938, Trenhaile filed an application for workmen's compensation setting out that his injury had resulted in a permanent disability, and asked that the case be reopened. The insurance carrier for the employer admitted that the relationship of employer and employee existed, but denied that there was any compensation due.

A hearing was held by the Industrial Commission at Sheldon, Jan. 26, 1939, and adjourned to take evidence.

On Feb. 2, 1939, the insurance carrier filed an amended answer alleging that claimant was not an employee but stood in a representative capacity, and therefore was not entitled to compensation under the Act.

The Industrial Commissioner's award of compensation as employee was upheld in subsequent court proceedings. On Feb. 6, 1940, the insurance carrier appealed to the Supreme Court of Iowa, alleging that Trenhaile stood in a representative capacity. This was only 26 days before the 2-year statute of limitations would have run against a suit by Trenhaile under the common law.

The Quaker Oats Co. had paid the compensation and never complained.

The Supreme Court on June 18, 1940, said, "He was lulled into a sense of security and led to believe by the appellant that he could rely on the memorandum of agreement they had entered into." "By entering into the memorandum agreement, by paying compensation and waiting until the last hour before the statute of limitations would have run the appellants are estopped from pleading the defense of representative capacity."

The court did not decide the question of whether Trenhaile stood in a representative capacity, so this point as to a grain elevator manager remains undecided.—292 N. W. Rep. 799.

Conviction for Converting Mortgaged Corn

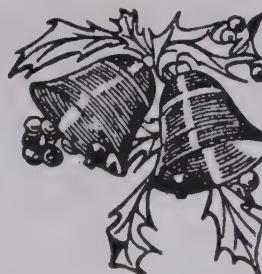
Floyd Sheets, living on a farm in Marshall County, Indiana, mortgaged 50 acres of corn to the Buhner Fertilizer Co., of Seymour, Ind., to secure the payment of \$142.50.

In the fall Sheets turned his hogs and cattle into the field and nothing was left but the corn stalks.

Unable to find the corn or to collect the fertilizer company filed an affidavit in court alleging that Sheets had converted the crop to his own use. The mortgage had been recorded. The prosecution was based on the following statute:

A mortgagor of personal property in possession of the same, who, without the written consent of the owner of the claim secured by mortgage, removes any of the property out of the county where it was situated at the time it was mortgaged, or secretes or converts the same or any part thereof to his own use, or sells the same or any part thereof to any person without informing him of the existence of such mortgage, shall on conviction, be fined not exceeding three hundred dollars, to which may be added imprisonment in the county jail not exceeding six months. Acts 1905, ch. 169, sec. 406, p. 584, sec. 10-4004, Burns, 1933.

The decision of the Circuit Court finding Sheets guilty was affirmed June 10, 1940, by



the Supreme Court of Indiana, stating that "the affidavit was sufficient to charge a public offense."—Sheets v. State. 27 N. E. Rep. (2) 769.

Indiana Grain Dealers Will Celebrate 40th Birthday

The 40th annual convention of the Indiana Grain Dealers Ass'n will be held at the Columbia Club in Indianapolis on Jan. 27 and 28, 1941. The subjects indicated are largely tentative and remain to be definitely selected by the respective speakers.

On Monday morning, Jan. 27, the meeting will be opened by President W. R. Beck, Shellyville, following a few songs led by "Rube" Ernie Smith, of Toledo. The reports of the President and Secretary and various committees will be abbreviated, to conserve time for other speakers.

The subject of "What Is the Future of Soybean Products to the Feed Dealers and Feeders" will be discussed. The balance of the morning session will be devoted to questions asked of Mr. Harold Stein, Hearings Section of the Wages and Hours Division, of Washington, D. C. He will answer questions as to the application of the grain dealers, feed dealers and feed mixers under this Act. Our members will be requested to submit their questions in writing prior to the time of discussion.

Monday afternoon Clarence E. Jackson, Executive Vice Pres. of the Indiana State Chamber of Commerce, will give a summary of pending legislation in Indiana. Ray B. Bowden, Executive Vice Pres. of the Grain & Feed Dealers National Ass'n will discuss National Affairs. R. D. MacDaniel of the Grain Dealers Fire Insurance Co., of Indianapolis, will discuss phases of the insurance subject, which probably will include suggestions for protective measures by country elevators.

What we anticipate to be one of the outstanding features of our entire convention will be the "Feed Information, Please" quiz program, which will close the afternoon program. The judges will be C. W. Sievert and Prof. C. N. Vestal and Dr. J. Holmes Martin of Purdue University. The members of the Board of Experts will consist of W. B. Krueck of Allied Mills, Inc., Lyman Peck of McMillen Feed Mills, J. E. Nelson of Armour & Co., Frank J. Holt of White Laboratories, Inc., and Russell Bailey of the Nappanee Milling Co. Questions on feed subjects have been requested and are coming in from persons interested. For each question accepted and used on our program, the one proposing same will be given a new \$1.00 bill. If the question stumps the experts, the party will be given \$2.00 additional. This contest is open to one and all, and more of these questions are requested to be sent to us at once.

The convention will come to a close on Tuesday noon following an important morning business session. The new I.C.C. regulations covering private trucks will be explained and questions answered by W. L. Snodgrass, District Supervisor of the Bureau of Motor Carriers of the I.C.C. Another prominent and nationally known speaker, secured through the National Association of Manufacturers of New York City, will address our meeting on a subject of great interest to all business men. A discussion period will be a feature at this session.

Washington News

The A. A. A. has announced that loan corn held by the C. C. C. as owner would be sold at 65c per bushel or at the local market price if higher, at the point where stored. This includes 128,000,000 bus. in steel bins, 22,000,000 bus. of other corn, but not the 70,000,000 bus. of C. C. C. corn in terminals.

The President has approved an item of \$212,000,000 in the budget for the fiscal year beginning July 1, 1941, for parity payments to farmers without any provision for raising this outlay except from general funds of the Treasury Department. The news is viewed as hopeful to the opposition to the revival of processing taxes thru the certificate plan.

The Federal Corp Insurance Corporation has announced that it has paid about 22 million bus. of wheat in indemnities and received about 15 million in premiums on this year's crop. Of the 378,966 contract holders, 112,415 filed claims for losses. The heavy losses are attributed to unusually large abandonments in Nebraska, Kansas, Texas, and Oklahoma.

The Wheat Certificate Plan is one of the proposed agricultural schemes coming up in Congress in January. One is the Pierce Bill which is being sponsored by Congressman Pierce of Oregon, and the other is the Wheeler Bill which is being sponsored by Senator Wheeler of Montana. Both are known as the so-called Certificate Plan Bills. Another bill being sponsored by the American Farm Bureau Federation is more or less of a fixed price-high loan bill. These bills, like most all agricultural legislation, are supposedly for the purpose of helping the farmer dispose of his grain and keep the price at a fairly high level.—T. R. Shaw, Editor, Cargill Bulletin.

Washington, D. C.—The grain, milling and feed trades have many problems to solve which are becoming more complicated. The Wage and Hours Law is uppermost and it seems impossible to get a satisfactory interpretation of this law to apply to the country elevator and feed dealers. The hearing at Chicago brought out some excellent testimony and reasons for getting a 14 weeks exemption from the Wage and Hours Law during the peak movement of grain. Ninety-five per cent of the country elevators are fully exempt by Section 13 and the Administrators definition of "area of production." About 5 per cent of the elevators may be covered because they employ more than seven persons.

New farm relief program under consideration at Department of Agriculture would shift large part of cost from the Treasury to processors of farm commodities by virtual revival of processing tax, and would guarantee growers a minimum price for products consumed in U. S. Plan is to sell to processors "income certificates" in amounts sufficient to make up difference between market and guaranteed price. Crop loans would be abandoned or reduced in attempt to check costly accumulation of loan stocks lately speeded up by collapse of foreign markets. Plan would burden consumers of particular products, but might check production of surplus by removing pegs from open-market prices—reducing incentive to plant large acreages.—United States News.

The Appellate Court at Chicago Dec. 23 reversed a judgment of \$799 awarded to Mrs. Stella Strassberg and M. Lewis against Lamborn, Hutchings & Co., holding their understanding that the brokerage house was to telephone them every one-eighth cent fluctuation in the price of corn during the day, was unreasonable, as a broker would have had to make 550 'phone calls during the day, Aug. 2, 1937.

Asked—Answered

[Readers desiring trade information should send query for free publication here. The experience of brother dealers is most helpful. Replies to queries are solicited.]

Rates of Federal Licensed Elevators?

Grain & Feed Journals: What are the storage charges prescribed for federally licensed elevators?

What rates are to be charged for handling and storing grain under loan for farmers?—Goodland Grain Co., Goodland, Ind.

Ans.: The United States Warehouse Act under which elevators are federally licensed does not fix rates. That law simply attempts to safeguard the rights of owners of stored grain to have grain delivered to them of the same quality and quantity taken into store.

The charges for handling and storage of grain covered by C.C.C. loans are prescribed in detail in the Elevator Agreement, which is the contract entered into between the C.C.C. and the warehouseman, copies of which may be had of the Commodity Credit Corporation.

Priority of Crop Liens?

Grain & Feed Journals: What is the order of priority of liens according to the law of Illinois, and what is the position of an account for seed corn against a landlord's lien, thresherman's lien and lien of chattel mortgagee?—A. J. Torri, Northwestern Grain & Livestock Co., Seatonville, Ill.

Ans.: In Illinois the thresherman's lien applies to the shares of tenant, landlord, mortgagee or anyone claiming part of the crop; so that the thresherman who has complied with the law by filing notice upon purchasers has a lien good for nine months, and comes before the landlord. The mortgagee comes after the landlord. In Illinois the supplier of seeds is an ordinary creditor without lien, and would come after the thresherman, landlord and mortgagee.

As between two mortgages the one first filed for record takes priority over the other mortgage; but no mortgagee can get priority by filing ahead of thresherman, or landlord.

A few states such as North Dakota have seed lien statutes.

Agricultural lien duly registered takes precedence over mortgage of prior date and registration.—Eastern Cotton Oil Co. v. Powell, Supreme Court of North Carolina. 160 S. E. 292.

Landlord was given priority over mortgagee in Winans v. Light, Supreme Court of North Dakota. 217 N. W. 635.

Application of Wage and Hour Law?

Grain Dealers Journal: There will be days when we would like to use 8 men maybe for a day or so when we have cars of grain or feed to unload. Our other employees not at the elevator would be retailing feed, or grinding feed, or delivering feed and coal locally by truck. Does the law mean that we are allowed 7 employees for the grain business or a total of 7 men for the grain business and the retail business? If so, and we use the 8th man one or two days per week does that mean all the employees come under the act that week?

Six people will run our business except during the rush season here, which may last 10 weeks.

Does a truck driver who takes our truck and goes to the farmer's granary over 10 miles and brings in corn come under the act?

What about the truck driver who brings in tankage from Kansas City, Kan., to our place in Missouri? Do Co-operatives come under this law the same as independent concerns? Is there any mileage limit as to where you send a truck driver as long as he stays within the state to deliver grain to other dealers or feeders?—H. H. Green Mill & Elevator Co., Pattonsburg, Mo.

Ans.: Using an eighth man puts all the employees under the act for that week only. The 7 employees are exempt the remainder of the year.

The truck driver who hauls grain a distance

of over 10 miles comes under the Act.

A truck driver who hauls tankage across the state line is engaged in commerce between the states and comes under the Act. The law applies to co-operative concerns. Extra men are not required to be kept an entire week. A truck driver delivering retail grain is exempt within the state.

Coming Conventions

Trade conventions are always worth while, as they afford live, progressive grain dealers a chance to meet other merchants from the same occupation. You can not afford to pass up these opportunities to cultivate friendly relations and profit by the experience and study of others.

Jan. 13, 14. Northwest Retail Feed Ass'n, Hotel St. Cloud, Ct. Cloud, Minn.

Jan. 16, 17. Pacific Northwest retail seed dealers, Multnomah Hotel, Portland, Ore.

Jan. 27. Farm Seed Group of the American Seed Trade Ass'n at the Palmer House, Chicago, Ill.

Jan. 27, 28. Indiana Grain Dealers Ass'n, Columbia Club, Indianapolis, Ind.

Jan. 28, 29, 30. Farmers Grain Dealers Ass'n of Iowa, Savery Hotel, Des Moines, Ia.

Fed. 4, 5, 6. Farmers Grain Dealers Ass'n of North Dakota, Grand Forks, N. D.

Fed. 18, 20. Minnesota Farmers Elevator Ass'n, Hotel Radisson, Minneapolis, Minn.

Feb. 19, 20. Pacific Northwest Feed Ass'n, Inc., New Washington Hotel, Seattle, Wash.

June 9, 10, 11. Society of Grain Elevator Superintendents, Minneapolis, Minn.

June 12, 13, 14. American Feed Mfrs. Ass'n, Homestead Hotel, Hot Springs, Va.

I. C. Harden Dies of Heart Failure

Ivan C. Harden, who since October, 1938, has been special representative of the Commodity Credit Corporation handling delivery of loan corn, died Dec. 17 at Chicago.

Mr. Harden was born at Liberty, Neb., 51 years ago, and in 1905 entered the employ of the Trans-Mississippi Grain Co., at Omaha as office boy, working his way up until he had charge of the country elevator department operating elevators in Iowa and Nebraska. After establishing the Taylor & Harden Grain Co. at Loup City he returned to the Trans-Mississippi Co.

For a short time he was with the Norris Grain Co. when it had an Omaha office. On the retirement of that company from the Omaha market Mr. Hardin took charge of the station department and coarse grain purchases and sales for the Trans-Mississippi Co., of which he was vice pres. in October, 1933, when that company was merged with the Bartlett-Frazier Co., having charge of the western division operating elevators at Burlington, Omaha, St. Joseph and at country stations. Interment was at Omaha.

Cost of Shrinkage in Weight When Drying Grain

By T. H. MINARY, Louisville, Ky.

SHRINKAGE: To find the final weight and shrinkage on any given lot of grain or other substance which has been dried, the original weight and the moisture content before and after drying being given, the following simple proportion may be used:

Percentage of

Dry Matter

AFTER DRYING (AD)

ORIGINAL

WEIGHT (O) ::

Percentage of

Dry Matter

FINAL

BEFORE DRYING (BD)

WEIGHT (F) ::

Multiply the third term by the second, divide the product by the first term and the quotient will be the final weight.

Then, the original weight less the final weight equals the shrinkage.

If the original weight is taken as 100 per cent, which can always be done, the shrinkage will be in percentage.

PROBLEM: What will be the shrinkage in weight on 1000 bushels of corn if the moisture content is reduced from 25 per cent to 15 per cent?

Dry matter after drying, 100-15=85 per cent.

Dry matter before drying, 100-25=75 per cent.

Original weight of corn, 1,000 bushels.

Therefore, 85% : 75% :: 1000 bus. : final weight.

Completing the proportion by multiplying 1000 by 75 and dividing the product by 85, the final weight is found to be 882.4 bushels, a shrinkage of 117.6 bushels, or 11.76 per cent.

Now, since we have found the final weight and the per cent decrease in weight, the next step is to find the per cent increase in cost. The per cent increase in cost always exceeds the per cent decrease in weight, which in turn always exceeds the per cent of moisture reduction. For instance, in the above problem, the moisture reduction is 10 per cent, the per cent decrease in weight is 11.76 per cent, and the per cent increase in cost is 13.33 per cent. This is where so many grain men err in figuring their shrinkage cost of drying grain.

Let's complete the above problem. Let us assume that we buy 1000 bushels of grain at 50c per bushel. The lot of grain cost us \$500.00. Now, if we dry that grain from 25 per cent to 15 per cent moisture, we will have only 882.4 bus. remaining out of the original 1000 bus. We can no longer sell the grain at 50c per bushel, as we have a fewer number of bushels, and we find that the new cost must be 56.67c per bushel, in order to get back our original \$500.00 investment. In other words, the final cost must be such that the Final Cost times the Final Weight is equivalent to the Original Cost times the Original Weight. Expressed in a proportion:

Final Weight (F) Original Cost (OC) ::

Original Weight (O) Final Cost (FC) ::

However, for the purpose of figuring shrinkage cost tables, it is much shorter to use the Per Cent Increase in Cost. The following simple relation holds true:

% Increase in Cost =

Original Weight × % Decrease in Weight

Final Weight

1000 × 11.76

OR

882.4

Or, Per cent Increase in Cost is 13.33%.

Knowing the Per cent Increase in Cost for that particular drying range, we can now take any original cost per bushel for wet grain, multiply it by the Per cent Increase in Cost, and we have the shrinkage cost of drying the grain from 25% to 15% moisture.

Of course, this is not the whole story. Cost of invisible losses in drying and handling also enter the picture, as well as the elevator costs

[Continued on page 550.]



DRIED TO 15%	Includes loss in weight only - Does not include elevator cost of drying:											
Reduction	8	7½	7	6½	6	5½	5	4½	4	3½	3	2½
BEFORE	23	22½	22	21½	21	20½	20	19½	19	18½	18	17½
AFTER	15	15	15	15	15	15	15	15	15	15	15	15
% Inc.Cost	10.39	9.67	8.98	8.28	7.60	6.92	6.25	5.59	4.94	4.30	3.66	3.03
30	33.12	32.70	32.69	32.48	32.28	32.08	31.88	31.68	31.48	31.29	31.10	30.91
31	34.22	34.00	33.78	33.57	33.36	33.15	32.94	32.73	32.53	32.33	32.13	31.94
32	35.32	35.09	34.87	34.65	34.43	34.21	34.00	33.79	33.58	33.38	33.17	32.97
33	36.43	36.19	35.96	35.73	35.51	35.28	35.06	34.84	34.63	34.42	34.21	34.00
34	37.53	37.29	37.05	36.82	36.58	36.35	36.13	35.90	35.68	35.46	35.24	35.03
35	38.64	38.38	38.14	37.90	37.66	37.42	37.19	36.96	36.73	36.51	36.28	36.06
36	39.74	39.48	39.23	38.98	38.74	38.49	38.25	38.01	37.78	37.55	37.32	37.09
37	40.84	40.58	40.32	40.06	39.81	39.56	39.31	39.07	38.83	38.59	38.35	38.12
38	41.95	41.67	41.41	41.15	40.89	40.63	40.38	40.12	39.88	39.63	39.39	39.15
39	43.05	42.77	42.50	42.23	41.96	41.70	41.44	41.18	40.93	40.68	40.43	40.18
40	44.16	43.87	43.59	43.31	43.04	42.77	42.50	42.24	41.98	41.72	41.46	41.21
41	45.26	44.96	44.68	44.39	44.12	43.84	43.56	43.29	43.03	42.76	42.50	42.24
42	46.36	46.06	45.77	45.48	45.19	44.91	44.63	44.35	44.07	43.81	43.54	43.27
43	47.47	47.16	46.86	46.56	46.27	45.98	45.69	45.40	45.12	44.85	44.57	44.30
44	48.57	48.25	47.95	47.64	47.34	47.04	46.75	46.46	46.17	45.89	45.61	45.33
45	49.68	49.35	49.04	48.73	48.42	48.11	47.81	47.52	47.22	46.94	46.65	46.36
46	50.78	50.45	50.13	49.81	49.50	49.18	48.88	48.57	48.27	47.98	47.68	47.39
47	51.88	51.54	51.22	50.89	50.57	50.25	49.94	49.63	49.32	49.02	48.72	48.42
48	52.99	52.64	52.31	51.97	51.65	51.32	51.00	50.68	50.37	50.06	49.76	49.45
49	54.09	53.74	53.40	53.04	52.72	52.39	52.06	51.74	51.42	51.11	50.79	50.48
50	55.20	54.84	54.49	54.14	53.80	53.46	53.13	52.80	52.47	52.15	51.83	51.52
51	56.30	55.93	55.58	55.22	54.88	54.53	54.19	53.85	53.52	53.19	52.87	52.55
52	57.40	57.03	56.67	56.31	55.95	55.60	55.25	54.91	54.57	54.24	53.90	53.58
53	58.51	58.13	57.76	57.39	57.03	56.67	56.21	55.96	55.62	55.28	54.94	54.61
54	59.61	59.22	58.85	58.47	58.10	57.74	57.38	57.02	56.67	56.32	55.98	55.64
55	60.71	60.32	59.94	59.55	59.18	58.81	58.44	58.07	57.72	57.37	57.01	56.67
56	61.82	61.42	61.03	60.64	60.26	59.88	59.50	59.13	58.77	58.41	58.05	57.70
57	62.92	62.51	62.12	61.72	61.33	60.94	60.56	60.19	59.82	59.45	59.09	58.73
58	64.03	63.61	63.21	62.80	62.41	62.01	61.63	61.24	60.87	60.49	60.12	59.76
59	65.13	64.71	64.30	63.89	63.48	63.08	62.69	62.30	61.91	61.54	61.16	60.79
60	66.23	65.80	65.39	64.97	64.56	64.15	63.75	63.35	62.96	62.58	62.20	61.82
61	67.34	66.90	66.48	66.06	65.64	65.22	64.81	64.41	64.01	63.62	63.23	62.85
62	68.44	68.00	67.57	67.13	66.71	66.29	65.88	65.47	65.06	64.67	64.27	63.88
63	69.55	69.09	68.66	68.22	67.79	67.36	66.94	66.52	66.11	65.71	65.31	64.91
64	70.65	70.19	69.75	69.30	68.86	68.43	68.00	67.58	67.16	66.75	66.34	65.94

The Cost of Shrinkage in Weight When Drying Grain [See facing page]

The GRAIN DEALERS JOURNAL

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds are always welcome.

Caney, Kan.—Plenty of moisture to give wheat a good start for a crop.—L. J. Pearsall.

Winchester, Ind.—Corn is still carrying a lot of moisture and we are running our drier right along, but after it is dried the corn is coming thru nicely, it is good texture and good color.—Goodrich Bros. Co., P. E. Goodrich, pres.

Tecumseh, Neb.—It has been so wet this fall that at this time there is more corn in the field than husked out. The late corn is good but the early corn ran into a hot dry spell that burned the tassel. The yield will be from 10 to 60 bus.—R. R. Gilmore.

Grainfield, Kan., Dec. 11.—Received one inch moisture in the last couple weeks. Number of farmers drilling wheat over since we received some moisture. Some of the wheat came up and died. Some farmers report their summer-fallowed wheat died for the lack of moisture.—Stewart's Grain Co.

Toronto, Ont., Dec. 1.—Production of fall wheat in Ontario for 1940, as compared with 1939, shown in parentheses, expressed in bushels, was 22,758,000 (22,271,000); of spring wheat, 1,299,000 (1,550,000); of oats, 87,853,000 (86,639,000); of barley, 15,700,000 (16,600,000).—S. H. H. Symons, Dominion Statistician.

Oklahoma City, Okla., Dec. 21.—The production of grain sorghums is estimated at 17,160,000 bushels compared with 9,600,000 bushels a year ago. The average yield per acre was placed at 11.0 bushels compared with 8.0 bushels in 1939. The acreage of grain sorghums for grain was increased during 1940 and was about 30 percent more than was harvested in 1939.—U. S. Dept. of Agri.

Minneapolis, Minn.—The final government estimate for the 1940 flax crop was 31,127,000 bus. With only 20,000,000 bus. of seed marketed to Dec. 1, we are doubtful whether the government's figure is correct as we do not believe that there are 11,000,000 bus. of seed back in the country. The U. S. Government final estimate 1940 flax crop is 31,127,000 bus., the U. S. Government final estimate 1939 flax crop was 20,152,000 bus. and the U. S. Ten-year average flax production has been 12,186,000 bus.—Archer-Daniels-Midland Co.

Stuttgart, Ark.—Rice production in Arkansas has been about normal in varieties except Blue Rose, which fell somewhat below normal. Blue Rose constitutes about 50 per cent of the crop. Production estimates were given at 8,000,000 bus. for Arkansas for the entire crop, against production last year of 8,500,000 to 9,000,000 bus. Rice production in Louisiana and Texas, which influences Arkansas markets, places considerably lower than the original forecast. The estimate at present is 1,000,000 bags (100 pounds) below previous estimates.—J. H. G.

Fort Worth, Tex., Dec. 16.—To my mind there has never been a December in the past ten years when crop conditions were as favorable as at present, for according to reports reaching me, no section of the state at this time is without ample moisture, but, of course, realizing that many things can happen between now and June 1st, I am not at all constrained to make any prediction as to the Texas and Oklahoma wheat crop, only to say that at this time it could not be any better.—G. E. Blewett, vice-pres. & gen'l mgr. The Ft. Worth Elvtr's & Whsing Co.

Winchester, Ind., Dec. 21.—Have talked to a good many farmers, and asked them about their wheat. To my surprise, they are saying they think wheat has not been hurt by cold weather, freezing, lack of snow or anything else. It looks just about as good as it did when winter started. Driving around central Indiana this week I found that wheat looks good. It is greener than it was three weeks ago. Farmers are preparing to put out considerable acreage of oats in the spring, and are looking around for seed oats.—P. E. Goodrich, president, Goodrich Bros. Co.

Decatur, Ill., Dec. 21.—Wheat conditions are good. The growth in the early planted fields is well advanced and stands are generally good. Reports to date on conditions in the domestic winter and spring wheat areas have been ideal.

Moisture supplies are excellent. As a rule when the crop goes into winter with above average conditions, abandonment of acreage over the winter is below normal. The Department of Agriculture's estimate of the Illinois soybean production was 35,140,000 bus., 17.5 bus. per acre. The November 1 report was 37,230,000 bus. Production in 1939 was 45,423,000 bus., 24.5 bus. per acre.—Baldwin Elevator Co.

Chicago, Dec. 20.—The supply of corn as harvested for grain as reported by the Dept. of Agri. plus Oct. 1st farm reserves and commercial visible supply same date for 1940-41 season 2,872,000,000 the 1939-40 season 2,926,000,000 and 10 year average 1927-37 is 2,161,000,000. The 1939-40 figures are the highest for the past 15 years while this year is second and the 1932-33 season third with 2,842,000,000. During December last year the range of spot contract corn was 54 $\frac{1}{4}$ to 65 $\frac{1}{4}$ and so far this month the range has been 59 $\frac{1}{2}$ to 65 $\frac{1}{2}$. In addition to the large supplies of corn as grain on hand the supplies of all feed grain is the second largest since 1920.—Orrin S. Dowse.

Minneapolis, Minn., Dec. 19.—The moisture situation this fall and early winter is the finest we have had for many years, and yet there are many sections of the country that are still under normal. South Dakota, Illinois, and Missouri seem to be the driest states in the country at the present time, while most of the states in the Southeast are still below normal. The Northwest Pacific Coast States, also the Southwest Winter Wheat States, have had an abundance of moisture, and are well supplied to go through the coming season. California and Florida are under normal, and some sections are really suffering from lack of moisture.—Cargill Crop Bulletin.

Topeka, Kan., Dec. 20.—The Kansas winter wheat acreage sown in the fall of 1940 is estimated at 12,996,000 acres or 104% of the 12,496,000 acres (revised) sown in the fall of 1939, according to the Kansas December winter wheat and rye report issued co-operatively today by the Agricultural Marketing Service and Kansas State Board of Agriculture. December 1 condition of winter wheat at 88% of normal is the highest for that date since the condition of 91 reported

in December 1930, and may be compared with the 26-year record low of 35% on Dec. 1, 1939 and the ten-year (1928-37) average of 76%. The final estimate of Kansas winter wheat production for 1940 is 123,648,000 bu. compared with 111,619,000 bu. harvested in 1939 and the 10 year (1929-38) average production of 135,801,000 bu. The area sown to rye in Kansas is estimated at 154,000 acres this year compared with 147,000 acres sown in the fall of 1939. Dec. 1 condition of rye is 89% compared with 47% last year.—Samuel J. Gilbert, Agri. Statistician.

Early Marketings of Corn Show Lower Quality

A corn crop of lower quality than last year's unusually good harvest is indicated by inspections of early receipts at representative corn belt markets, the U. S. Dept. of Agriculture reported Dec. 13.

Of the nearly 12,000 cars received and inspected at these markets during November, approximately 36 per cent graded No. 4, No. 5, and Sample Grade compared with only 5 per cent falling into these grades in November, 1939. Tho a considerable portion of these receipts was old corn, enough new corn was received to indicate the lower quality of the 1940 crop.

Prior to the storms early in November, new corn receipts were mostly grading No. 3. The wind blew down much standing corn, however, and damaged the grain still in the fields, so that most of the current new corn receipts are grading No. 4 or lower because of excess moisture and damaged kernels. Storm damage appears to have been most severe in eastern portions of the corn belt; November inspections at the markets receiving corn principally from that area show 46 per cent of the receipts grading No. 4 or lower this season, compared with only 6 per cent in November, 1939.

United States Grain Crops for 55 Years

Estimates of the U. S. Department of Agriculture of wheat, corn, oats, rye and barley crops of the United States from 1886 to 1940, in bushels, are as follows:

	Winter	Spring	Wheat				Barley
			All	Corn	Oats	Rye	
1886...	.....	.....	513,540,000	1,782,767,000	682,312,000	23,854,000	73,503,000
1887...	.....	.....	490,761,000	1,604,549,000	696,175,000	22,548,000	73,395,000
1888...	.....	.....	423,867,000	2,250,632,000	773,159,000	28,417,000	76,389,000
1889...	.....	.....	504,370,000	2,294,289,000	831,047,000	29,524,000	80,790,000
1890...	.....	.....	449,042,000	1,650,446,000	609,122,000	26,378,000	69,380,000
1891...	.....	.....	677,543,000	2,335,804,000	836,789,000	29,541,000	94,160,000
1892...	.....	.....	611,854,000	1,897,412,000	721,284,000	28,718,000	95,179,000
1893...	.....	.....	505,795,000	1,900,401,000	707,129,000	26,700,000	87,109,000
1894...	.....	.....	541,873,000	1,615,016,000	750,009,000	26,758,000	74,211,000
1895...	.....	.....	542,119,000	2,534,762,000	924,858,000	29,636,000	104,475,000
1896...	.....	.....	522,963,000	2,671,048,000	774,929,000	31,385,000	97,479,000
1897...	.....	.....	606,202,000	2,237,628,000	829,525,000	31,137,000	102,575,000
1898...	.....	.....	768,148,000	2,351,323,000	842,205,000	29,062,000	58,174,000
1899...	.....	.....	655,143,000	2,645,796,000	937,173,000	26,001,000	118,161,000
1900...	.....	.....	599,315,000	2,661,978,000	945,483,000	27,413,000	96,588,000
1901...	.....	.....	762,546,000	1,715,752,000	799,812,000	30,773,000	123,800,000
1902...	.....	.....	686,959,000	2,773,954,000	1,076,899,000	33,877,000	146,207,000
1903...	.....	.....	663,115,000	2,515,093,000	885,469,000	28,932,000	149,335,000
1904...	.....	.....	555,571,000	2,686,624,000	1,011,556,000	28,461,000	166,103,000
1905...	.....	.....	706,026,000	2,954,148,000	1,104,395,000	31,173,000	171,629,000
1906...	.....	.....	740,509,000	3,032,910,000	1,022,715,000	29,609,000	179,148,000
1907...	.....	.....	628,764,000	2,613,797,000	801,144,000	28,247,000	150,584,000
1908...	.....	.....	642,818,000	2,566,742,000	829,308,000	28,650,000	176,780,000
1909...	417,796,000	266,131,000	683,927,000	2,611,157,000	1,013,909,000	30,083,000	173,069,000
1910...	429,875,000	195,601,000	625,476,000	2,852,794,000	1,106,162,000	29,098,000	142,419,000
1911...	428,740,000	189,426,000	618,156,000	2,474,635,000	885,527,000	31,398,000	145,074,000
1912...	402,703,000	327,308,000	730,011,000	2,947,842,000	1,353,273,000	37,911,000	186,927,000
1913...	501,239,000	249,862,000	751,101,000	2,272,540,000	1,039,131,000	40,390,000	151,820,000
1914...	670,945,000	226,542,000	897,487,000	2,523,750,000	1,065,328,000	42,120,000	177,712,000
1915...	640,565,000	368,072,000	1,008,627,000	2,829,044,000	1,435,270,000	46,751,000	206,976,000
1916...	456,118,000	178,454,000	634,572,000	2,425,206,000	1,138,369,000	43,089,000	159,157,000
1917...	389,956,000	229,834,000	619,790,000	2,908,242,000	1,442,519,000	60,321,000	182,209,000
1918...	558,506,000	347,624,000	904,130,000	1,441,249,000	1,428,611,000	83,421,000	225,067,000
1919...	748,460,000	203,637,000	952,097,000	2,678,541,000	1,106,603,000	78,659,000	181,086,000
1920...	613,227,000	230,050,000	843,277,000	3,070,604,000	1,444,291,000	61,915,000	171,042,000
1921...	602,793,000	216,171,000	818,964,000	2,928,442,000	1,045,270,000	61,023,000	132,702,000
1922...	571,459,000	275,190,000	846,649,000	2,707,306,000	1,147,905,000	100,986,000	182,905,000
1923...	555,299,000	204,183,000	759,482,000	2,875,292,000	1,227,184,000	55,961,000	158,994,000
1924...	571,558,000	268,533,000	840,091,000	2,288,071,000	1,424,422,000	59,076,000	167,314,000
1925...	401,116,000	268,026,000	669,124,000	2,853,083,000	1,410,336,000	42,779,000	192,779,000
1926...	631,950,000	201,594,000	833,544,000	2,574,511,000	1,141,941,000	35,361,000	164,467,000
1927...	547,666,000	327,067,000	874,733,000	2,677,671,000	1,093,079,000	52,111,000	240,057,000
1928...	577,417,000	335,544,000	912,961,000	2,714,535,000	1,318,377,000	38,591,000	329,625,000
1929...	586,055,000	236,125,000	822,180,000	2,535,546,000	1,118,414,000	35,482,000	286,242,000
1930...	631,205,000	258,497,000	889,702,000	2,065,273,000	1,277,379,000	46,275,000	303,752,000
1931...	817,962,000	114,259,000	932,221,000	2,588,503,000	1,126,913,000	32,290,000	198,543,000
1932...	478,291,000	267,497,000	745,788,000	2,906,873,000	1,246,548,000	40,639,000	302,042,000
1933...	350,792,000	178,183,000	528,975,000	2,351,658,000	731,500,000	21,150,000	155,825,000
1934...	405,562,000	91,377,000	496,929,000	1,377,126,000	525,889,000	16,045,000	118,345,000
1935...	465,319,000	161,025,000	626,344,000	2,296,669,000	1,194,902,000	58,597,000	285,774,000
1936...	519,013,000	107,443,000	626,461,000	1,524,317,000	789,100,000	25,554,000	147,452,000
1937...	685,102,000	188,891,000	873,933,000	2,644,995,000	1,146,258,000	49,449,000	219,635,000
1938...	686,637,000	244,164,000	930,801,000	2,542,283,000	1,053,839,000	55,039,000	252,189,000
1939...	563,431,000	191,540,000	754,971,000	2,619,137,000	937,215,000	39,249,000	276,298,000
1940...	589,151,000	227,547,000	816,698,000	2,449,200,000	1,235,628,000	40,601,000	303,235,000

Corn arriving at Chicago during November graded as follows: No. 1, 782; No. 2, 588; No. 3, 962; No. 4, 1,308; No. 5, 657; low grades, 135 cars.

A year ago during November 1,542 were graded No. 1; 1,271 No. 2; 730 No. 3; 137 No. 4; 25 No. 5; and 64 cars low grades.

Wheat and Ry Acreage and Condition

Washington, D. C., Dec. 20.—The U. S. Dept. of Agriculture reports that the acreage of winter wheat seeded in the fall of 1940 for harvest in 1941 is estimated at 46,271,000 acres. This is an increase of 5.6 per cent above the acreage seeded last fall. The 1939 acreage was 43,820,000 acres and the 10-year (1928-37) average is 47,807,000 acres. The acreage seeded this fall is above last year in all areas, exceeding last year by about 3 per cent in the central soft red winter wheat area, fully 5 per cent in the hard red winter wheat area, and about one-fifth in the soft wheat states of the Northwest.

The condition of winter wheat on Dec. 1, 1940, of 84 per cent is the highest since Dec. 1 1930, which preceded the big crop of 1931. This December's condition is high by comparison with the 55 per cent on Dec. 1, 1939, and the 1928-37 average of 79 per cent.

The acreage of rye seeded in the fall of 1940 is estimated at 6,002,000 acres, which is about 8½ per cent larger than the area seeded in the fall of 1939, but slightly smaller than the 10-year average seedings. These estimates include acreage seeded for pasture, soil improvement, etc., as well as acreage for harvest as grain.

The condition of rye on Dec. 1, 1940, at 83 per cent of normal, is far above the 64 per cent reported a year earlier and also is higher than the 10-year (1928-37) average of 78 per cent. The condition of the crop is uniformly good.

Open Interest in Future Deliveries

As reported by the C.E.A. for wheat, corn, oats and rye, and by the Board of Trade Clearing House for soybeans the open interest in all futures on the Chicago Board of Trade recently has been as follows, in 1,000 bushels:

D.S.	Wheat	Corn	Oats	Rye	Soy-beans
Aug. 3	80,359	22,134	9,571	16,427	1,778
Aug. 10	82,082	22,982	10,061	16,734	2,390
Aug. 17	80,492	22,585	10,131	16,515	2,781
Aug. 24	77,384	22,927	10,164	16,075	2,906
Aug. 31	70,137	22,470	10,403	15,489	2,963
Sept. 7	60,516	22,779	10,560	14,290	3,410
Sept. 14	59,707	22,075	10,961	13,962	3,038
Sept. 21	58,871	19,176	10,132	14,601	3,163
Sept. 28	58,175	19,454	10,115	14,316	3,331
Oct. 5	57,283	19,641	10,119	14,273	3,531
Oct. 11	56,279	19,516	10,192	14,558	4,321
Oct. 19	55,539	20,287	10,392	14,562	5,273
Oct. 26	55,850	20,811	10,382	15,014	5,976
Nov. 2	54,629	22,070	10,466	15,107	6,477
Nov. 9	55,877	22,771	10,380	14,860	7,180
Nov. 16	54,534	24,088	10,560	14,794	7,150
Nov. 23	56,038	25,156	10,658	14,951	7,356
Nov. 30	55,726	24,765	10,380	14,144	6,975
Dec. 7	55,891	24,864	9,973	12,674	6,851
Dec. 14	55,477	24,910	9,982	12,105	*7,042
Dec. 21	50,179	22,509	9,858	12,550	6,859
*Reported under Commodity Exchange Act					

*Reported under Commodity
beginning Dec. 9.

R. H. Coats Dominion Statistician.

Daily Closing Prices

The daily closing prices for wheat, corn, oats, rye, barley and soybeans for May delivery at the following markets for the past two weeks have been as follows:

	Wheat														
	Option	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.
	High	Low	11	12	13	14	16	17	18	19	20	21	23	24	
Chicago	89½	70	86½	86	85%	85½	83½	84	84	84	84½	84½	84%	85½	76%
Winnipeg	78¾	75%	78¼	78½	77¾	77½	77¾	76¾	77¾	76½	76¼	76¾	76½	76¾	76%
Minneapolis	88¾	68%	84%	83¾	83½	83½	81%	81½	81¾	81¾	82%	82%	81%	83%	79%
Kansas City	84	63%	81%	81½	79¾	79	77¾	78¾	78¾	78½	78	78	78½	78	74%
Duluth, durum	80½	71%	75¼	75%	75%	75½	74	73%	73%	74½	73%	74½	73%	73½	74%
Milwaukee	89½	70	86½	86½	85%	85½	83½	84	84	84½	84½	84½	84%	84%	...
	Corn														
Chicago	66	54%	60%	60½	59%	59½	59	59%	60½	60½	60½	60½	60½	60½	61½
Kansas City	61½	53	57	56%	56%	56	55%	56%	56%	56%	56%	56%	57%	57%	57%
Milwaukee	65%	55	60%	60½	59%	59½	59	59%	60½	60½	60½	60½	60½	60½	60½
	Oats														
Chicago	38	28%	36	35%	35½	35%	34%	35%	35%	35%	35½	35½	35½	35½	35%
Winnipeg	33½	26%	32%	32%	32½	32	31%	32½	32½	32½	32½	32½	32½	32½	33
Minneapolis	34%	26	32%	32%	32½	31%	31%	32	32½	32½	32	32	32	32	32½
Milwaukee	38	28¾	36	35%	35½	35%	34%	35%	35%	35%	35½	35	35½	35	...
	Rye														
Chicago	52½	42%	47%	47½	47	46%	45%	46	46	46½	46%	45%	45%	45%	46%
Minneapolis	48%	39%	44%	44%	44½	43%	43	43½	43%	43%	43%	43%	43%	43%	43%
Winnipeg	52	43%	50%	49	49½	49	48½	48%	49	48½	49%	49½	49½	48%	49½
	Barley														
Minneapolis	43½	38	43½	42%	42½	42	41½	41¾	41%	41½	41½	41½	41½	41%	41½
Winnipeg	46%	33%	45%	44%	44½	44	43%	43½	44	43%	44	44	44	44	44½
	Soybeans														
Chicago	105	69	94	93	89½	89¾	85%	88%	87%	87%	88%	89½	87%	88½	91%
Canada Exchange ..	..	86%	86½	86½	86½	86½	86%	86½	86%	86%	86%	86%	86%	86½	...

Philadelphia, Pa.—Receipts and shipments of grain during November, 1940, as compared with November, 1939, shown in parentheses, expressed in bushels were as follows: Receipts, wheat, 78,319 (3,160,670); corn, 64,011 (915,816); oats, 5,594 (210,062); rye, 3,050 (4,674); barley, — (3,159); shipments, wheat, 738,616 (684,537); corn, 26,025 (75,356); oats, 7,805 (438,854); rye, 905 (2,142); barley, 794 (1,825).—John W. Frazier, sec'y, Philadelphia Commercial Exchange.

Decatur, Ill., Dec. 14.—Country movement of corn has slowed up, as well as the demand. The price is now well below the government loan. Farmers have been shipping hogs into the market at record breaking rates. November slaughter was the highest in many years. Farmers have been cutting down their hog population just as rapidly as possible and there probably would have been another slash in the number of sows bred for spring pigs if they could have sold their corn to the government for 61 cents and held same for only one year—Baldwin Elevator Co.

New York, N. Y.—Receipts and shipments of grain in November, 1940, as compared with November, 1939, in parentheses, as expressed in bushels, were: Receipts, wheat, 1,383,062 (3,252,838); corn, 237,014 (556,881); oats, 28,600 (131,900); rye, 1,700 (231,200); barley, 47,600 (850,510); soybeans _____ (1,106,000); flaxseed, _____ (57,964); millfeed, tons, _____ (24); shipments, wheat, 363,000 (1,657,000); corn, _____ (158,000); rye, _____ (125,000); barley, _____ (890,000); soybeans, _____ (573,000); clover seed, _____ (6,934).—Dept. of Information & Statistics.

Duluth, Minn.—Navigation finally closed with the departure of the grain-laden steamer Bethlehem, bound for Buffalo with a wheat cargo of 403,000 bus. Grain moved down the lakes during the 1940 season totaled 79,745,981 bus., but fell short of the 1939 traffic by 4,748,555 bus. More wheat and flaxseed was shipped this year than last, while other grains showed a decrease and offset the former. Canadian wheat from Saskatchewan and Alberta points is moving in steadily and in large volume. Receipts have been averaging 100 cars daily or better, but the run slowed down somewhat for several days on account of sub-zero weather and bitter cold prevailing several days. In the week ending Dec. 14 elevators unloaded 1,429,000 bus. of wheat lifting stocks in store to 10,000,000 bus. The slow marketing of domestic grain from farms has made elevator space available to store this wheat which is coming in under special tariff. Estimates place the amount already received or to be railed in at about 5,000,000 bus., and bringing the total amount held in bond to around 13,000,000 bus. A Canadian steamer brought in 271,000 bus. of barley in bond right at the close of navigation. Duty was later paid on about one-half of it, evidently with intention of railing it out for domestic consumption.—F.G.C.

The Argentine corn crop is officially estimated at 403,442,000 bus., against 191,485,000 bus. the preceding year. The balance remaining for export on Oct. 26 or for carry-over was officially estimated at 266,417,000 bus., compared with only 50,000,000 bus. on Oct. 31, 1939.

Lending 40 Cts. a Bushel to
New York Wheat Growers

By G. E. TOLES

Cash loans on wheat for farmers have become a reality in Western New York after a failure of the Government wheat loan program to work in this area.

The Co-operative G. L. F. Mills, Inc., is advancing loans of 40 cents a bushel on grain delivered to it for storage, agreeing to pay the balance on the basis of the current market price, whenever the farmer agrees to sell.

The Government's wheat loan program has failed to work in this area, according to the Erie County Farm Bureau Federation, because there has been no public elevator available to which farmers can truck their wheat.

The plan was tried, but difficulties were encountered at the outset because much of the Western New York grain did not conform to the standard grades on which loans were to be made.

Fire Protection for Isolated Elevators

By R. D. MACDANIEL, of the Grain Dealers National Mutual Fire Insurance Co.

The latest in an ever-increasing series of exceptional fire "stops" by neighboring fire departments at unprotected country elevators occurred near Edwardsburg, Mich., on the afternoon of October 28. The plant of the Wendt Grain Co. on the outskirts of that town consisted of a frame, iron-clad elevator, a concrete elevator, a battery of concrete tanks and a brick-and-frame combination warehouse and grinding room, all adjoining in a compact group. The fire started in the warehouse, apparently set by sparks from a trash fire along the railroad right-of-way. With no water supply and a stiff breeze blowing the fire toward the main plant, it seemed likely the entire group of buildings would be destroyed very quickly. However, help was summoned from Cassiopolis and Niles, Michigan, and from Elkhart and South Bend, Indiana.

But what possible good, one might ask, could all the equipment in the world do with a well-started elevator fire without any water? That, however, was just the reason for summoning the outside aid. About a mile from the elevator was a whole lake full of water; the only problem was one of transferring some of the water from the lake to the elevator. Obviously that could be done by placing a pumper on the bank to take suction from the lake and stationing other pumpers at intervals to boost the water along. The plan was such a complete success that very shortly after the South Bend No. 3 pumper dropped its suction pipe into the lake, water was being played on the flames nearly a mile away and the major part of the fire damage was confined to that section of the plant first involved.

VERY FEW country elevators are situated within even relaying distance of a lake but a few months ago, the driver of the township pumper from Mt. Summit, Indiana, managed to find a "hole" in an otherwise dry stream bed near the elevator at Sulphur Springs that provided enough water to extinguish a stubborn blaze in the cupola of that elevator. Not quite so fortunate were firemen from Columbia City, Indiana, when they responded to a call from Raber, found the elevator already past saving and a number of valuable out-buildings seriously threatened. Although there was a drainage ditch a few hundred feet from the elevator the steep banks and low water level made it impossible for the pumper to obtain suction. Much time and several valuable buildings were lost while a dam was being constructed but eventually suction was obtained and much property saved that otherwise would have burned.

Such instances definitely show that very frequently elevator property in unprotected localities can be saved provided pumping equipment can be obtained within a reasonable time, and that water is available in sufficient quantity near the elevator.

THE WATER SUPPLY is of primary importance. Sometimes, as was the case when the large elevator at Raub, Indiana, was endangered by fire in a close-by garage, the responding pumper carried with it a sufficient amount of water to do the trick. But very seldom will it happen that the 200 or 300 gallons normally carried by these rural outfits will prove adequate, especially if the fire gets started inside the elevator.

In nine cases out of ten, unless a stream, pond or cistern is available the response of apparatus from a neighboring town will prove to be nothing more than a friendly gesture. There are few elevators that cannot provide a

water supply at reasonable cost, even those not located in villages where it may be done on a co-operative basis. If streams or ditches cannot be dammed, materials that would be required can be collected and placed where they would quickly be available or a small, fairly deep catch basin may be constructed near the stream and kept filled with an open or tiled ditch. It should be kept in mind that a pumper is a heavy piece of apparatus that will bog down in soft ground so a substantial approach should be provided to the stream or water hole.

A CISTERNS is the most satisfactory and always dependable water supply. For \$100, or probably less, a 3,000-gallon concrete cistern can be provided at almost any elevator and kept filled by the run-off of rain water from the elevator or adjacent building. When a township pumper was purchased and located at Lowell, Indiana, two miles from his elevator, Manager Einstahl of the Gleaners & Farmers Co-operative Elevator, at North Hayden promptly built himself such a cistern and then invited the fire chief out to familiarize himself with the layout of the property and the facilities that had been provided. Within a year a dwelling, which seriously exposed the elevator company's office and warehouse, caught fire and was well involved before anybody noticed it. But the pumper arrived promptly, took suction from the cistern and stopped the fire before any damage was done to the company's property. Had it been necessary to spend a lot of time

searching for water, the office would certainly have been a total loss as was the elevator at Foresman a few weeks ago when firemen from a neighboring town had to stand helplessly by and watch a fine elevator burn because there was no water with which they could have saved it.

MANY TOWNS which have only one piece of fire fighting apparatus, belonging exclusively to that town, will not permit the apparatus to be taken beyond its corporate limits. Such a rule is usually justified by the reasoning that a pumper six or seven miles out in the country is of no value to the taxpayers who paid for it and who have every right to expect that it will be available to them at all times. Even where a small city may have two or three pieces of equipment, it is possible that were it to permit its equipment to leave the city a favorable insurance classification, based upon all of the apparatus being available at all times, would be lost. Then in some cases there is a further consideration of guaranteed payment for fire department services.

Much equipment of late years has been purchased by townships, either singly or cooperatively, and is of course available to any property owner located therein. One of the best arrangements that has come to our attention has been worked out by Chief Lafrau of Goshen, Indiana. Being unable to send any of his own equipment outside of the city limits, Chief Lafrau made a deal with the four adjoining townships that if they would buy a pumper and provide five men each who always would be on call for fires in their respective townships, he would train the men, would house the apparatus and would provide a driver to take the apparatus to the fire. The call men selected all own trucks, so in practice the apparatus and several trained men, each with a truck more or less loaded with milk cans full of water, all

[Concluded on page 543]



Top: Burning of Wendt Grain Co's Warehouse, Edwardsburg, Mich. Bottom: Fire department of South Bend, Ind., siphoning water from lake to extinguish above fire one mile away.

Venezuela Experiments with Corn Storage

By VINCENT BLUM, before Chicago Chapter, Society of Grain Elevator Superintendents

Venezuela, 350,000 square miles of potentially rich but undeveloped tropical country at the north end of South America, where 3,250,000 inhabitants depend for a part of their food supplies upon the corn and beans raised on three to five acre native hillside farms and in the fertile valleys between and behind the mountains, is experimenting successfully with American methods for storing cereal crops.

Unsuccessful native methods for storing in sacks the corn crop that is harvested twice each year from the rich loam top soil of mountain and valley farms led to the experiment. The country's present liberal president, Gen. Lopez Contreras, refused to be satisfied with advice that American storage methods would not work.

The problems to be overcome were high temperatures, high humidity and insect infestation. The latter was a major problem. Native farmers, when their corn was ripe, went thru their fields, breaking over each stalk just below the bottom ear, so the ears would hang downward. In this position the shucks would shed rain and protect the ear from parrots and other bird life. But they provided also a cozy nest for insects with a desire to lay eggs. The hungry stage of the new crop of weevil destroyed the corn in native sack storage within three months, leaving hungry humans three months without corn before the second crop of the year was ready for harvest.

Good bargainers, the Venezuelans forced a penalty guaranty of 25% of the erection costs before their government authorized an American firm, John R. Stubbins, who has sales offices in Caracas, to build two experimental elevators. The guaranty required that the corn keep in storage tanks for a period of six months and come out in good condition.

The two 75,000 bu. elevators built, the one near Caracas, the capital, the other at Acarigua, 300 miles inland from the Caribbean sea, are identical. They were named "La Encrucijada" and "Acarigua." Each consists of six steel tanks connected by screw conveyors with a head house. The head house is of frame construction, iron-clad, and rises 68 ft. above a 44x20 ft. reinforced concrete foundation and basement. In it are four floors for proper placement of the machinery. Ladders and a manually operated manlift are the means of passage between the floors.

Attached to the head house is a receiving driveway and scale house. This is 18 ft. high, 52 ft. long and 12 ft. wide, with concrete ramps leading to a 15 ton Fairbanks truck scale over a receiving pit that will hold 500 bus. of corn. Trucks are emptied into this receiving pit by a Great Western electric overhead traveling truck lift. The pit is cleared of ear corn received by a drag chain leading to a sheller in the basement of the head house.

Machinery in the head house consists of the 750 bu. per hour Western sheller and a Western gyrating corn cleaner on the top floor. Elevating and conveying machinery to handle grain to and from these machines, the storage bins and the drier consists of two 1,000 bu. per hour elevator legs, one carrying 13x7 inch Salem buckets for elevating shelled corn and cob from the sheller to the cleaner; the other with 10x5½ inch Minnesota V buckets for transfer and loading of shelled corn, and four 9 inch screw conveyors, one for carrying shelled corn out over the storage tanks, two under the storage tanks for drawing grain back into a leg boot, and one to bring grain from the drier back to the leg.

The drier is a 100 bu. per hour capacity Ran-

dolph automatic direct heat, oil burning drier, with a 50 bu. garner above it and a 20 bu. hopper below. This is housed in a separate iron-clad drier building 40 ft. high, 12 ft. wide and 17 ft. long. Grain to be dried is spouted direct into the garner bin over the drier from the transfer and loading leg in the head house, and is returned to head house by the screw conveyor.

All the machinery in the elevator is operated with a system of belts from a line shaft turned by a 60 h.p. caterpillar diesel engine housed in a separate iron-clad engine house attached to the head house. Electricity for light, for the grain drier controls and for the truck dump is supplied by a Fairbanks-Morse 5 KVA generator. The flow of grain is directed by valves controlled by ropes from the work floor.

Storage for 75,000 bus. is provided in six Columbian bolted cylindrical steel tanks, 46 ft. 8 inches high, and 22 ft. 10 inches in diameter. Each has capacity for 12,500 bus. They are set in two rows of three tanks on a concrete foundation in which is formed hopper bottoms for the tanks and conveyor tunnels for the screw conveyors which return grain to the head house.

In each tank, close to its outside ladder, three test holes are spaced at intervals the height of the tank. Thru these temperature readings of the contents may be made with a thermometer on the end of a push rod.

The entire plant, including the ramps to and from the receiving driveway, and the loading space under the loading spout that stretches downward across the driveway, sets on an area 106 ft. long by 75 ft. wide.

Since Venezuela has no government corn standards, the U. S. grades were used as the basis for judging the efficiency of the plant in keeping corn.

Venezuelan corn is about 95% white and 5% yellow dent, open-pollinated, slightly mixed in some areas with flint or Indian corn and pop corn. This corn reached the elevators carrying from 12% to 25% moisture, from 9% to 18% damage, and from 6 to 25 adult live weevil to every 1,000 grams. In test weight it varied from 58 lbs. to 62 lbs. per bu.

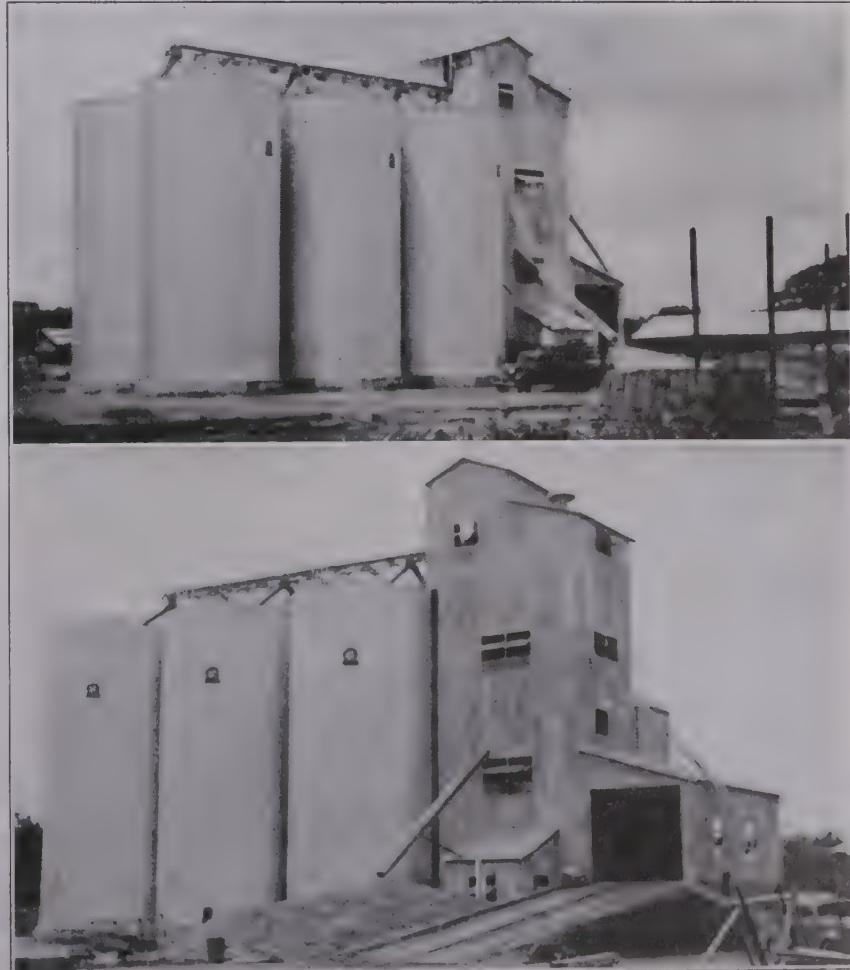
Shrinkage as the corn moved into storage averaged about 20%, due principally to kernels that were so badly weevil eaten they broke up in the sheller and were removed by the cleaner screen.

Drying tests soon demonstrated that the corn would stand no temperatures above 185 degrees F. When attempts to raise this temperature were made the corn cracked or swelled until it looked ready to pop.

Drying proved an essential operation to the storage of corn. Natural corn, carrying as low as 12% moisture, showed signs of going out of condition after 6 or 7 weeks in the tanks. Kiln dried corn carrying 11% moisture, and leaving the drier with as high as 135 degrees F. temperature, would stand storage for one month before requiring turning and fumigation. Then at an average temperature of 85 degrees it could stay in storage as long as four months before needing turning again.

The average temperature of corn in storage in these elevators is 85 degrees F. The tanks showed remarkable ability to resist high out-

[Concluded on page 543]



75,000 bu. steel elevator at Acarigua, Venezuela

Sexauer Seed Cleaning Plant Modern from Basement to Roof

Open House for the new seed cleaning plant built by Geo. P. Sexauer & Son, at Brookings, S. D., was held Nov. 30. Coffee and doughnuts were served, and every few minutes during the day a new group of farmers, townsmen, and visiting seedsmen was started on a tour of the four floors and basement of this last word in seed cleaning plants; and marveled at the clean whiteness of the enameled interior, the efficient operation of the 23 seed cleaning machines, the multiplicity of spouts and legs that gave the plant flexibility and moved seeds from bin to bin or thru machines with factory-like precision and with a minimum of power and a minimum of labor.

Geo. P. Sexauer, president of Geo. P. Sexauer & Son, whose early experience in flour mills taught him the importance of flow sheets that will keep products moving, and Elmer H. Sexauer, sec'y and manager, whose practical mind recognized the importance of orderly sequence for receiving, storing, cleaning and shipping seeds at low cost, utilized the mechanical arrangement of a flour mill in designing the new seed cleaning plant built for them at Brookings, S. D., by T. E. Ibberson Co. They left no cleaning problem unsolved, and spared no expense to achieve convenient, sturdy construction, thoroly efficient handling of all kinds and grades of field seeds, and low operating overhead.

THE NEW PLANT is of frame construction on a 70x34 ft. reinforced concrete foundation and basement, and rises 100 ft. from the basement floor to the ridge of its roof, 85 ft. above the ground.

Above the basement are four floors, the first, or sacking floor, the cleaning floor, the bin floor, and the head floor. Passage of workmen from floor to floor is facilitated by a Strong-Scott manlift at one side of the structure, and by a stair-well at one end of the building. Movement of seeds from the bottom to the top of the structure, and from machine to machine is

facilitated by 11 legs and 53 spouts, distributing to 30 bins and 23 cleaning machines.

The main leg carries 6x10 inch CC cups on 10 inch centers to elevate seeds from its receiving hopper to the top of the structure. This receiving leg is supplemented with three legs of equal length, carrying 5x9 inch CC cups on 10 inch centers. In addition there are 7 legs serving machines that carry 3x3½ inch CC cups. A pilot light on the sacking floor beside each leg glows red when the leg is in operation.

Most of the legs have individual drives, utilizing Tex-rope V belts from motor to jack shaft and roller chains from jack shafts to head shafts. Where two legs come side by side and their normal operation will permit, one motor is used for both. Jack shafts, boot shafts, and head shafts turn freely in roller bearings. They require little power. Operating motors are rated from 3 to 5 h.p. and pull their loads easily. The motors used are of various makes, including Fairbanks-Morse, and G. E., but each is fully inclosed and dust tight.

Seeds from the main receiving leg are distributed thru a Strong-Scott distributor, swinging thru 360 degrees on the head floor. Further distribution of seeds received occurs below the top floor where sheet steel encased valves connect with spouts leading to bins and machines. Distribution from other legs is by means of sheet steel valves instead of distributors. Some are two-way valves, others three-way valves, controlled by pull ropes that find their way direct, or over pulleys where necessary, to the cleaner floor and the sacking floor.

THE TOP, or head floor, in addition to the leg heads, distributor, and distributing valves, houses five of the Day dust collectors that keep the entire plant clean and free from dust. These have their exhaust outlets extended thru the roof. Six more Day Dual-clone dust collectors are mounted outside, attached to the walls of the building.

Located also on the top floor is the master fan of the Day dust collecting system. This pick-up fan is so connected with the electrical system that no machine and no leg may be run without the dust collecting system being in operation. The dust collecting system has floor sweeps on every floor in the building, as well as connections to every bin, every leg head, boot, and every cleaner. A No. 35 Bayley type exhaust fan and a 15 h.p. direct connected motor operates the suction system.

THE BIN, OR SPOUT FLOOR, like other floors in the building, is of hardwood, easily swept and easily kept clean. On this floor are 53 spouts, directing the flow of seeds into the 30 storage and sacking bins which give the plant 20,000 bus. of bulk seed storage capacity; or direct to machines, divisions in the spouts being fitted with valves for this purpose.

All bins are covered. Fitted trap doors may be lifted to examine the contents of any bin. Each of the 30 bins is lined with sheet steel to avoid rough surfaces to which small seeds and dirt might cling. Each is 24 ft. deep, and steeply hoppered at the bottom to insure complete drainage of contents. The steel linings and hoppered bottoms prevent mixing of seeds in the bins.

ON THE SECOND, or cleaner floor are 19 of the 23 cleaners, set in rows and inter-connected batteries, like the rolls in a flour mill, with an aisle on each side of each row for convenient inspection. Machines on this floor include a No. 57 cleaner, four gravity separators, two Clipper super 109D and three No. 29D cleaners, six Carter disc separators of various

types for different purposes, a Rice dodder machine, and a Sizor machine. Thru these machines every known principle of seed cleaning is utilized to insure clean, dependable separations of weed seeds from crop seeds, to size seeds, and to remove all inert matter.

Each machine, bin and spout is numbered. The banks of pull cords controlling spout valves are numbered correspondingly to simplify directing a continuous flow of different lots of seeds into and out of bins and thru machines.

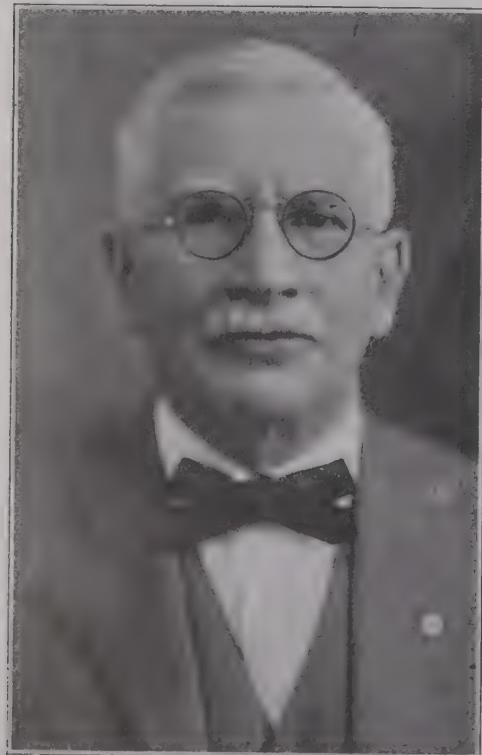
Some of the machines drain thru spouts into elevating legs to pass their separations to other machines for further processing, or for re-elevation to storage and sacking bins. Others drain finished seeds into sacking garners on the floor below.

THE FIRST, OR SACKING floor, has 62 sacking spouts. Most of these are arranged in batteries of several spouts. Each spout is fitted with a No. 22 sacking end, employing a heavy coil spring encircling the spout end. The coil spring is flipped easily up or down over a middle hump to catch and hold, or to release a sack.

In the hardwood floor of this sacking room are six small trap doors with counter-sunk handles that leave a smooth floor surface. These doors may be lifted to dump sacks of seed into hoppers under the floor that drain into the boots of elevating legs. The trap doors are located close to spout ends, so short connections can be made for direct transfer of seeds to bins or back to machines.

On the sacking floor is kept a Fischbein portable industrial sewing machine, which is moved from spout to spout as required, and zips across the tops of filled bags in a wink to make a tight closure. On this floor, too, are portable and dormant Fairbanks and Howe scales for checking the weights of sacked seeds, and there are several rubber-tired hand trucks for passing finished bags of seeds thru sliding doors direct into cars, or out to the loading dock ready for shipment by truck.

THE TRUCK LOADING dock is a part of the warehouse attached to the east end of the seed cleaning plant, and is reached thru a sliding door. Its floor is of maple like the floors in the cleaning room, and the sacking room. Room is provided on the loading dock for stacking orders ahead of time in position for quick loading



Geo. P. Sexauer of Brookings, S. D.



E. H. Sexauer, Brookings, S. D.

when a truck is backed thru the sliding door of the warehouse to bump against the dock. Trucks are backed into a pocket in the dock so they can be loaded from the end or over the side as is convenient.

In one corner of the sacking floor of the seed cleaning plant is a Giant clover seed huller and scarifier. This machine's motor and variable speed drive are located in the basement under it.

IN THE BASEMENT is a Day bag cleaner, which uses suction to flip a bag inside out and remove clinging seeds and dust. Emptied sacks are dropped thru a chute from the sacking floor above to land in a heap beside this machine, where they can be cleaned almost as fast as a man can pick them up and lay them down again.

The full basement provides more room than is needed, the extra space being used for storage. At one side of the basement is a sack elevator which cradles bundles of sacks, or bags of seed on its iron arms and noses them up thru the floor of the sacking room to dump them on a platform at waist level for the workmen.

WORKING CONDITIONS around the new seed plant are ideal. The dust collecting system serves a double purpose in keeping it well ventilated as well as free from dust.

The interiors of both the sacking floor and the cleaning floor are finished with plywood to hold the fan-circulated heat from overhead hot-water heaters. These walls are painted with three coats of white enamel to reflect light from the many windows and keep these floors cheerful. The plywood walls and their white enamel finish serve still another purpose. They have no cracks to hold the dust and dirt, and are easily kept bright and clean.

An aid in keeping the building clean is the compressed air outlet on each floor. A length of hose is connected to each of these outlets and has a nozzle to blow out motors, and machines, thus contributing to their cleanliness and cool operation.

WIRES from the 53 three-phase motors and from the dustproof lighting system in the new seed cleaning plant are carried thru rigid conduit across the driveway of an attached receiving and storage elevator to a 12x14 ft. room in what was formerly the company's offices. More than 7 miles of wire of various sizes find connections here with electric power thru Cutler-Hammer and Allan Bradley dust proof magnetic switches. Danger of sparks is eliminated, the switches being controlled by magnetic push button controls located at the legs and machines.

ALL MOTORS in the Sexauer properties at Brookings are gradually being changed over to three-phase, but for the present two-phase motors are continued in operation in the 40,000 bu. seed receiving elevator that was left standing and attached to one end of the new seed cleaning plant. This elevator is used for receiving



New Seed Cleaning Elevator of Geo. P. Sexauer & Son at Brookings, S. D.

and storing flax and other bulk seeds. Dust tight controls for its motors are located on the workfloor.

The driveway of this elevator is 80 ft. long, closable at each end by folding doors that allow 12x12 ft. clearance for trucks. In the driveway is the 26 ft. deck of a 10 ton truck scale, a single, steel lined, grate-covered receiving sink, and a Globe truck lift.

On the workfloor of this elevator there are two cleaners used for rough cleaning of flax seed before such seed is passed to the new seed cleaning plant for finishing. On the workfloor also is a 30,000 lb. Fairbanks hopper scale for weighing house lots of seed.

Two of the three legs in this storage elevator are equipped with 5x9 inch buckets and deliver seed to an inclosed Gerber double distributor on the head floor to the bins. The other carries 5½x11 inch buckets and is used for transferring seed.

The company's old office, attached to the south side of the elevator driveway is a 32x80 ft. single-story structure divided into 8 rooms that are now used for storage of bags, for odds and ends, for a warm office for the superintendent of the seed plant, or the elevator weighman, for a machinery repair room and for the electrical control room of the new seed plant.

THE PRESENT OFFICES are in a one-

story brick structure a short distance from the seed plant. One side of the new building is used as a general office, the other side is divided into four private offices for company officials, and a seed testing laboratory. The laboratory is fitted with all the latest types of seed analyzing and testing facilities. Experts carefully analyze all lots of raw seed as they are received, and check finished lots of seed for purity and germination before they are tagged, ready for the trade.

THE FIELD SEED business is a year-around business. It has one turn-over of stocks annually. For this reason considerable storage space for both bulk and sacked seeds must be maintained. The seed storage elevator, and the 30 bins in the cleaning plant furnish a total of 60,000 bus. of space for bulk seeds in the Brookings plant.

PRINCIPAL STORAGE for sacked seeds is a 5-story and basement warehouse 120 ft. long and 40 ft. wide across a switch track of the Chicago & North Western railroad from the elevator and new seed cleaning plant, and connected to the new seed cleaning plant with a drawbridge that may be cranked up against the side of the warehouse to allow cars to pass.

Two sliding doors on the track side of this warehouse open to load or unload carloads of seed. On the opposite side of the building are



General view of the Sexauer Headquarters in Brookings, S. D. At the left are elevators and the retail store; center, the main offices, at right, top of the new seed cleaning plant, with seed warehouses in foreground.

The GRAIN DEALERS JOURNAL

three sliding doors thru which trucks are loaded or unloaded.

Weights are checked in this warehouse with a 10,000 lb. Fairbanks automatic dial scale set in the maple floor near one of the carload receiving doors; and with a Howe dormant scale in the other end of the building. In addition several portable scales are pushed around where needed.

Stocks of sacked seeds are elevated to the different floors for storage by means of a 1½ ton elevator that passes up thru the middle of the warehouse. A spiral chute passes sacks of seeds downward to the main floor from any floor in the building, and a bag elevator lifts sacks of seed stored in the basement, to the main floor.

This warehouse, the former seed cleaning plant, has a main elevating leg for bulk seeds, equipped with 5x9 inch cups on 16 inch centers. It has 19 seed sacking bins and spouts, which are now used for breaking odd lots of seed.

THE SEED CORN drying plant is separate from other facilities at the back end of the company's two city blocks of properties at Brookings. This is a 30x100 ft., one-story, iron-clad building, fitted with six bins that will hold 300 bus. of ear corn each. An ear corn conveyor receives seed corn at one end and drops it thru trap doors in the drag bottom into any desired bin.

A 25 h.p. exhaust fan at opposite ends of the building forces hot air from an oil furnace upward or downward thru the corn in any or all bins thru an ingenious series of trap doors that direct the flow of air. Normally, 48 hours in a 110 to 120 degree F. draft will cure seed corn down to a low moisture content, ready for the sheller.

The sheller is located in the basement of the drying plant which is equipped with three short legs to pass cobs to the outside, and to pass shelled corn to the three machines, a cleaner used for polishing, and a Universal and an Eureka grader.

WHILE PREPARATION of Perfection Brand, and Sx field seeds is the main business of Geo. P. Sexauer & Son, it is by no means all of the business. The company has three grain elevators, a feed plant, a retail feed store, coal pockets, and four warehouses, all in operation, in Brookings.

The three grain elevators total 75,000 bus. in storage capacity. Combined with the company's line of 35 country grain elevators at 27 stations in South Dakota and Minnesota, they



A view of the 23 cleaners in seed elevator of Geo. P. Sexauer & Son, Brookings, S. D.

give the company total storage capacity for 1,000,000 bus. of grain.

Most of the company's elevators are buyers of bulk seeds like alfalfa, sweet clover, red clover, flax, millets, and sorghums, as well as of grain, and have retail sales rooms for distribution of Perfection and Sx brands of seeds and Peerless feeds.

A number of the country elevators also have feed grinding and mixing plants. Those located where demand does not warrant a feed grinding and mixing plant are served with retail stocks from main distributing plants.

DISTRIBUTION of field seeds is entirely thru dealers. Long distance deliveries and carlot deliveries are shipped by rail, but in this fast moving age when so many dealers demand maintenance of seed inventories thru current deliveries of truck lots, the company has found it necessary to maintain seven trucks that travel interstate thru its most intense trade area. Garages for these trucks are maintained at the Brookings property.

The company has another seed cleaning plant

and a warehouse at Des Moines, Ia., which also ships by rail and truck.

THE SEXAUER BUSINESS had its beginning when Geo. P. Sexauer began operation of a flour mill at Chatfield, Minn., in 1891. Two years later he moved to Volga, S. D., where his mill prospered and led him to move to the larger city of Brookings in 1897.

Farmers in the Brookings area gave up straight production of wheat and turned to diversified farming in 1913. At this time Mr. Sexauer, with his son Elmer H., who had joined the business two years earlier, turned to the grain business and began building his line of grain elevators.

The Sexauer seed business had its beginning in 1919 and has grown rapidly to become the principal business of the company's home office at Brookings.

Elmer H. Sexauer, who bears the title of sec'y-treasurer, and manager, is an active worker in both seed and grain circles. Last fall the grain dealers of the land paid tribute to his energy, his diplomacy, and his fine managerial ability when terminal and country operators joined hands to elect him unanimously to a second term as president of the Grain & Feed Dealers National Ass'n.

Elevator Men of Four States in Annual Convention

The Farmers Grain Dealers Ass'n of Iowa was host to the officers and directors of farmers elevators of Iowa, Nebraska, Oklahoma and Kansas at Fort Dodge, Ia., for the annual convention of the National Co-operative Elvtr. Ass'n.

The program, held at the Warden Hotel, convention headquarters, included round table discussions of co-operative and grain marketing problems. Frank Robotka, marketing specialist of Iowa State College at Ames, and Harold Hedges of Washington, D. C., a research director for the Farm Credit Administration, were in attendance.

State ass'ns affiliated with the national organization are the Kansas Farmers Co-operative Ass'n, the Farmers Co-operative Grain Dealers Ass'n of Oklahoma, the Farmers Elvtr. Ass'n of Nebraska and the Farmers Grain Dealers Ass'n of Iowa.

All officers of the organization were re-elected for the coming year. They are: Oscar Heline of Marcus, Ia., pres.; Paul Peeler of Elk City, Okla., vice-pres.; and Frank Rutherford of Omaha, sec'y.



Sacking Floor of Geo. P. Sexauer & Son's Seed Elevator at Brookings, S. D.
[See pages 540 and 541]

Profits of Northern Illinois and Northern Indiana Elevators

By WILLIAM OLSON & Co., Certified Public Accountants

In arriving at the average financial condition for grain elevator companies we have taken into consideration both the strong and the weak, from those financially strong to those who are heavily in debt, some even to the extent of being insolvent if the creditors were to press them. The following figures represent the general averages of the entire group. In assembling these average figures we have divided the totals by the number of organizations used in this survey. The following condensed summary is the average figures for our statistical year ended April 30, 1940, and a comparison with the statistical year ended April 30, 1939.

	Average Figures Apr. 30, 1940	Apr. 30, 1939	Increase *Decrease
Current Assets			
Cash	\$ 4,509.75	\$ 4,141.72	\$ 368.03
Notes			
Receivable	2,221.42	2,241.89	*20.47
Accounts Receivable	8,522.29	8,734.08	*211.79
Inventories ..	10,302.98	10,000.35	302.63
Securities ..	—0	743.07	*743.07
	25,556.44	25,861.11	*304.67
Current Liabilities			
Notes			
Payable ..	4,393.10	4,879.58	*486.48
Accounts Payable ..	7,272.82	7,444.82	*172.00
	11,665.92	12,324.40	*658.48
Working Capital	13,890.52	13,536.71	353.81
Fixed Assets ..	14,977.33	14,576.13	401.20
Other Assets ..	2,339.35	1,767.21	572.14
Prepaid Expenses	241.05	270.38	*29.33
	31,448.25	30,150.43	1,297.82
Mortgage Indebtedness.	2,614.14	2,723.35	*109.21
Net Worth	\$28,834.11	\$27,427.08	\$1,407.03
Average Figures			
Apr. 30,			
1940			
Net Sales ..	\$152,300.91	\$166,189.85	*\$13,888.94
Cost of Sales ..	142,032.42	157,160.05	*15,127.63
Gross Profit .	10,268.49	9,029.80	1,238.69
Other Income ..	1,948.82	1,870.45	78.37
Total Income.	12,217.31	10,900.25	1,317.06
Operating Expenses	7,319.93	7,178.71	141.22
Operating Profit ..	4,897.38	3,721.54	1,175.84
Other Expenses			
Interest ..	468.76	479.38	*10.62
Bad Debts ..	360.74	271.35	89.39
Depreciation	1,021.62	950.15	71.47
	1,851.12	1,700.88	150.24
Net Profit ...	\$ 3,046.26	\$ 2,020.66	\$ 1,025.60

* Decrease.

From the foregoing summary it will be noted that the average gross profit realized on sales was \$10,268.49 for the statistical year ended April 30, 1940, as compared with an average of \$9,029.80 shown for the previous year—an increase of \$1,238.69. After also taking into consideration the other income which averaged \$1,948.82 for the current year the total gross income was \$12,217.31. The operating expenses for the current year averaged \$7,319.93, which when deducted from the aforementioned total income leaves an operating profit of \$4,897.38. From said operating profit must be deducted the average interest expenses of \$468.76, average bad debts of \$360.74 and the average depreciation of \$1,021.62, thereby leaving the average net profit \$3,046.26. When comparing the average net profit for the current statistical year with the average net profit shown for the statistical year ended April 30, 1939, there is an increase of \$1,025.60.

On corn the average gross profit was 1.6c per bushel, on oats 2.5c, on beans 4c, on wheat 1.2c.

The average gross profit was 13.5% on feed, 14.9% on seeds, 17.3% on coal and coke, 24.4% on lumber and building materials, 10.8% on fertilizer.

On average grain sales of \$130,367.83 the gross profit was \$6,156.80.

Since most elevators handled a great deal of corn, oats, beans and wheat, but the volume of other merchandise varied considerably, the following analysis has been prepared by averaging, the total overhead expenses according to the "Cost per 1,000 bushels of Grain sold." In making this analysis we have charged the entire amount of expense to the handling of grain, all other products being considered as by-products and not charged with any of the overhead expenses. The result of this analysis is as follows:

	Cost per 1000 Bu. of Grain Sold	Highest	Lowest	Avg.
Advertising	\$ 1.19	.05	.43	
Audit, Legal and Collection .....	.89	.12	.43	
Directors' Fees	2.11	.26	.68	
Dues and Subscriptions .....	.27	.02	.10	
General Expense	1.92	.02	.73	
Insurance	5.18	.44	1.66	
Light and Power	11.46	.54	2.66	
Rent .....	.60	.03	.19	
Repairs	3.36	.07	1.43	
Supplies—Office and Elevator	2.77	.23	.87	
Salaries	44.52	5.29	14.40	
Taxes	12.62	.52	2.88	
Telephone and Telegraph	1.20	.06	.40	
Truck Expenses	3.64	.11	1.39	
			28.25	
Interest	12.87	.02	2.71	
Bad Debts	6.78	.06	2.11	
Depreciation	13.32	1.54	4.28	
Total				\$37.35

Venezuela Experiments with Corn Storage

[Continued from page 539]

side temperature. With an outside temperature of 120 degrees, for example, the temperature reading 1 inch inside the tank wall would be 104 degrees, 3 inches would show a drop to 95 degrees, 6 inches showed 91 degrees, 9 inches recorded 88 degrees, and the middle of the tanks tested 83 to 85 degrees. Such temperatures are ordinarily considered quite high, but when the moisture in the corn had been reduced to 11% it stood this temperature without heating and resisted heavy weevil infestation.

Insect infestation in the corn consisted of the black rice weevil, the granary weevil, bran bug, and the angoumois moth. The drier heat or the aspiration over the cleaner cleaned out all but the black rice weevil. But the black rice weevil was predominant in infestation. It did the most damage, and was most difficult to kill. Unaffected by the drier or the cleaner, nothing less than a good fumigant would control it.

The customary dosage of weevicide to corn in storage is 1½ gallons to every 1,000 bus. of corn. Efforts to control the black rice weevil with one dose, or with the continuous stream method were unsatisfactory, but when the layer method of fumigating was employed it resulted in a nearly 100% kill, because this method prevented volatile fumigant gases from escaping before they could kill the weevil. The black rice weevil was able to come back to life after 42 hours, but succumbed to longer periods. The weevicide was effective for 70 hours. It was necessary to fumigate the legs, boots and screw conveyors as well as the bins to prevent reinestation of the grain during turning operations.

A Venezuelan government commission visited the two plants following their 6 month trial period and made its own tests of the corn condition. These tests demonstrated that the corn in storage was in much better condition than it was when first received at the elevator. Moisture, damage and insect infestation were low, which was very encouraging to these government officials. "La Encrucijada" and "Acarigua" had come thru with flying colors, and they began to visualize the time when more plants would enable them to keep the country's corn crops from season to season, and the people satisfied and safe from the 300% swings in corn prices that have heretofore been considered a natural and necessary twice-a-year occurrence.

Fire Protection for Isolated Elevators

[Continued from page 538]

arrive at a fire almost simultaneously. The plan is working out very satisfactorily.

IF THE SERVICES of fire apparatus can be obtained merely by guaranteeing payment therefor, there is a very simple and inexpensive means open to any elevator owner. All that he needs to do is to request his fire insurance company to place an item in his fire policy to cover possible fire department charges. The cost to the elevator man will depend on his individual insurance rate and the amount of the charges he wishes to be insured against. On the average, the annual cost of a \$100 item would be about one dollar. It is well to have a contract with the city or town in which is definitely stated the rates to be charged for the services of its fire department.

Such an item may advantageously be placed in policies covering elevators located in towns that, while possessing a pumper, would likely require outside assistance in event of a serious fire, or a threatened serious fire, for sometimes local officials are hesitant to call for outside assistance. With such an item in his fire policy an elevator owner whose property was involved or seriously exposed could take it upon himself to call for assistance to protect his own property and to guarantee payment for it. The intent is not to pay for services to which the elevator owner is entitled by virtue of being a taxpayer, but to reimburse him for payment for contractual services not supplied by the taxing unit in which he is located.

RURAL FIRE DEPARTMENTS throughout the country are doing excellent work; where water supplies are provided and where elevator owners take the trouble to familiarize the firemen with their elevators and arrange to pay for services rendered, if necessary, there is good reason to believe that hundreds of elevators in rural sections may be assured a fair degree of protection.

Hearings on Changes in Grades of Rye and Oats

At the Minneapolis hearing by the Agricultural Marketing Service the chairman of the Millers National Federation on grain standards, Walter H. Mills, favored the changes proposed by the Department of Agriculture creating grades of "plump" and "thin" rye, as published in the Journal, page 441 of Nov. 27 number.

At the Chicago hearing Mr. Kitchen, chief of the Division, explained that the grade of "Plump" would offer a premium for quality rye.

W.M. HOMMERDING of the B.A. Eckhart Milling Co. said "Give us a contract rye with not too much thin rye."

LAWRENCE FARLOW, Bloomington, Ill., sec'y Illinois Farmers Grain Dealers Ass'n: Our interest in grades is that they reflect the higher price for quality. It seems to me there is an opportunity at the terminals for blending of which the country elevator man can not avail himself.

ROLAND McHENRY: Twenty per cent of thin rye in No. 2 is an approximate solution of the problem.

It is no benefit to have a grade containing 10 per cent of other oats. We ought to have a more liberal interpretation, to allow 89 per cent white and 11 per cent of Columbia and still be called special red oats. At least 30 or 40 per cent of strictly white oats should be permissible in the special red.

MR. GORDON of the Quaker Oats Co.: We are taking the Columbia oats without discount in the country, while we can buy them at Chicago at 2½c discount, which is not right.

MR. MARKS: country elevator manager: We pay the farmer the same for Columbia as

[Continued on page 557]

Enid's New Inspection Laboratory

The Enid (Okla.) Board of Trade's protein laboratory and the Enid grain inspection department are joined together in a new building on Randolph street into which these two essential departments of the grain business in the busy Enid market recently moved.

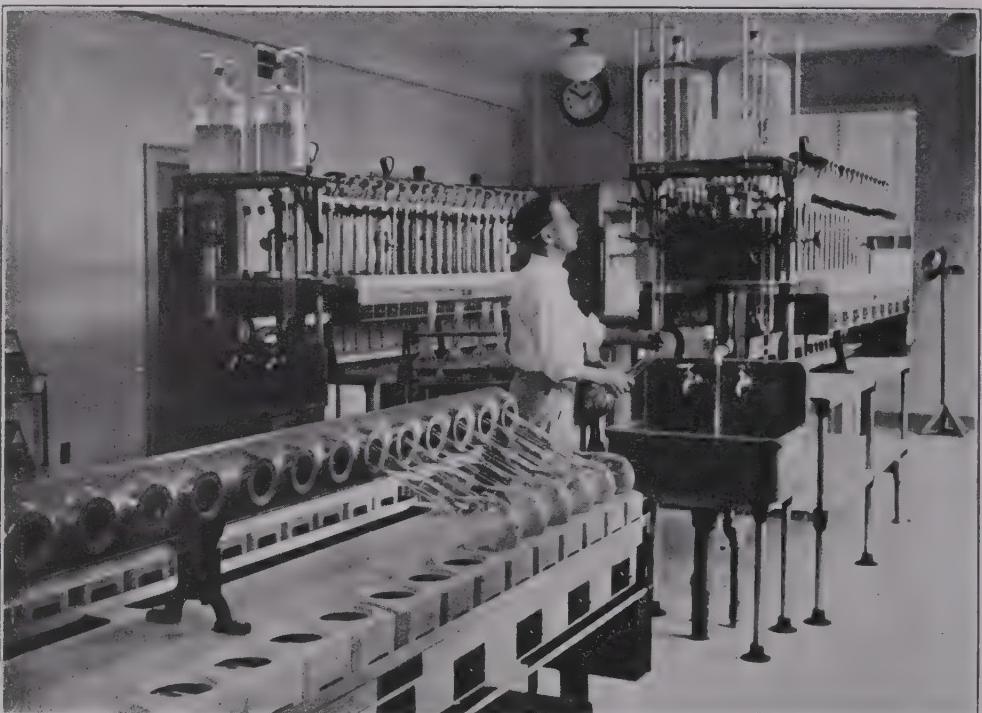
The new building and its equipment cost \$30,000. The building is a 50x80 ft., single-story brick structure, with concrete floors, and an air-conditioning system. It is laid out with the inspection department in the front, where the picking tables are close to the many windows facing the street, so they are well flooded with a north light at all times. In the back part of the inspection department room, over which Chief Grain Inspector G. C. Rhodes presides, are the moisture testers, the dividers, the kickers, the hand sieves, and every piece of modern equipment which plays a part in grain inspection work. The grain inspection department regularly keeps five grain inspectors busy, and during the busy season the number of samplers alone runs as high as forty.

The inspection department is run by Mr. Rhodes and his son, F. W. Rhodes, on a fee basis, as is customary in Oklahoma. Fees are \$1 per car, whether in or out bound. Mr. Rhodes rents the front part of the building, which was designed for his department, from the Enid Board of Trade, which is the owner.

The protein laboratory, a possession of the Enid Board of Trade, makes protein tests at 50c each, occupies 34x48 ft. at the back part of the building. In this part of the building are digesters, stills, sample scales, grinders, and



The grain inspection and protein laboratory of the Enid (Okla.) Board of Trade has north and east exposure.



Chief Chemist Ray C. Alban working at the stills in the protein laboratory.

other equipment, sufficient to run 72 protein samples at the same time.

Boss of the Enid Board of Trade Laboratory is Ray C. Alban, more properly titled "chemist and manager." During the rush season he has as many as 10 chemists in his employ to run protein tests as fast as protein samples are passed back to him by the grain inspection department.

Of course there are many clerical details to the inspecting of grain, and the protein testing of wheat. One side of the building is devoted

to offices for this purpose. The three clerical offices occupy the east side of the building and are inter-connected, so as to minimize the passing along of necessary papers and certificates.

Enid is proud of its new grain inspection and protein laboratory. Credit for the progressive spirit that created it goes to the Enid grain dealers, and their board of trade officers, President Claud Nicholson, Vice-President L. W. Sanford, and that energetic and perpetual sec'y of the Board of Trade, Ben U. Feuquay.



Chief Grain Inspector G. C. Rhodes operates a grain sample divider.



Left: Large north windows keep light even on picking tables. Front to back are: Inspector L. C. Hill, Chief Inspector G. C. Rhodes and Asst. Chief F. W. Rhodes. Right: The inspection laboratory. In the foreground is Asst. Chief Inspector F. W. Rhodes; working with the sieve is Inspector L. C. Hill.

Moths in Corn and What to Do About Them

By HARRY R. CLARK, Chief Grain Inspector, Omaha Grain Exchange, Before Western Grain and Feed Ass'n

I am reliably informed that the moth we are pestered with is not the Angoumois grain moth, but the Indian meal moth, for which we can be very thankful.

THE ANGOUMOIS GRAIN MOTH is a very serious problem of the southern and eastern states. The infestation begins in the growing grain, shock or stack, or in the bin. The eggs are laid on the outside of the kernel. The newly hatched larva eats its way into the kernel; the larval or pupal stages are completed within the grain.

The adult Angoumois moth is unable to eat its way out; therefore, the larva takes care of this necessity for continuing the species. After becoming full-grown and before pupating, the larva eats an entrance to the outer portion, leaving only a thin circular cover. The adult moth simply pushes the thin covering aside when ready to leave the grain.

Each female may deposit as many as 150 eggs. The life cycle (egg to adult) of this insect is about five weeks under favorable conditions.

THE INDIAN MEAL MOTH is a general feeder and is found infesting grain, feed and flour. Under normal storage and elevator handling conditions, it is not a major problem in the storage of grain.

The larvae or worms do the damage. They cause serious heating in the top foot or two of grain. Turning or handling the grain is usually sufficient control. However, in severe cases of infestation or where frequent turning is impractical, either due to lack of storage space or danger of cracking dry corn, fumigation or contact spray control becomes necessary.

The larva spins a thread as it crawls about which accounts for the matted surface on bins of grain.

The female moths lay from 300 to 400 eggs. The eggs are laid singly or in groups on or near the food. The fully grown larva usually leaves the material on which it has fed in search of a suitable place to spin its cocoon before transforming from the larval stage into the moth stage. This habit accounts for the apparent migration of thousands of these mature worms.

Under favorable conditions, the egg to adult stages are completed in about four weeks.

In our market, there are two schools of thought in the treatment of moth infestation. One group believes in fumigation. These fumigants are liquids, which, when applied or poured on grain, evaporate to form a heavier than air gas. In the use of fumigants to eliminate moth, smaller dosages are used than in treatment of other insects. The reason for this is that the larva of the moth is only one or two feet below the surface of the grain. One of the fumigants used in our market contains 99% chloropicrin (tear gas). Therefore, operators applying the fumigant must wear a mask. If you are bothered with moth and also other insects, such as bran bugs, then for a complete kill, the grain should be run and the fumigant applied as it enters the receiving bin.

Another group of operators in our market use the contact spray to combat moth. Contact sprays are not a fumigant and are only effective in treating the tops of bins. Contact sprays are compounds which kill insects by coming in actual contact with them. Death is due to clogging of the breathing openings or corrosive action. I am told that when contact sprays are used that your troubles are not over in one application. Because the larva keep emerging from the corn, it is often necessary to treat several times before control is attained.

A great variety of sprayers at a wide range of prices is available to the prospective user. However, as a suitable and more convenient sprayer, the knapsack garden type sprayer,

which is obtainable at most hardware stores at a range of from \$4 to \$7. In order to obtain best coverage, for example, fine mist and use less material, use the nozzle having the smallest outlet.

Concrete 50,000-bu. Country Elevator

The unusual design of the elevator erected for the Farmers Co-operative Grain & Supply Co. at Canton, Kan., was necessitated by the limited space between two already existing stave silos and the track.

The new construction adds 50,000 bus. to the 28,000 bus. storage of the plant, which is located on the A., T. & S. F. Ry. in McPherson County, in central Kansas.

It consists of two 16-ft. tanks 100 feet high with four bins over the driveway and three intersecting bins over the workroom.

Equipment includes a 3000 bu. per hour leg driven thru an Ehrsam Combined Head Drive with a 15-h. p. Fairbanks Morse Enclosed Motor. In the driveway which is 12' wide 15' high by 32' long are two 9x5" steel grates served by an Ehrsam Overhead Truck Lift with 3-h. p. hoist type electric motor equipped

with magnetic brake. For more modern convenience an electric manlift of the Ehrsam make with 3-h. p. motor was provided extending from the work floor to the cupola floor.

At the head a 12" intake fan has been provided which is motor driven. At this point the dust is taken from the head and discharged into a collector and from there it is dropped to a dust bin located over the extension of the driveway, which is so arranged that at any time it can be discharged into a truck.

All out-going grain is weighed thru a 10-bu. Richardson automatic scale and is diverted to the cars thru an 8" well casing spout. All spouting is of steel and all gates are of the rack and pinion type, rope operated.

In addition to the elevator the arrangements for filling and emptying the two silos and a two story concrete warehouse 16x40' were part of the original contract with Chalmers & Burton, who designed and built the elevator. Marvin Fisher manages the elevator.

Eleven Indiana coal companies have joined the fight on the Illinois sales tax, by intervening in Circuit court suits contesting the right of the state to levy sales taxes on interstate shipments.



New Concrete Elevator of Farmers Grain & Supply Co., Canton, Kan.

Agitation for Crop Improvement, Before South Dakota Association

Crop improvement, proposed changes in rye grades, and building up of sound financial structures behind farmers' elevators were prominent subjects before the three-day 34th annual convention of the Farmers Elevator Ass'n of South Dakota, held at the Lincoln Hotel, Watertown, Dec. 10, 11, and 12.

Headquarters for the convention were in the hotel, where registration in the lobby began on the morning of the first day and mounted to a total of 620 before the convention was over. Business sessions began the afternoon of the first day. They were held in a theatre next door to the hotel.

Tuesday Afternoon Session

PRESIDENT W. J. JACOBS, Faulkton, presided at the opening session.

Invocation was pronounced by Rev. Peterson, Watertown.

MAYOR LOWE, of Watertown, delivered to the delegates the keys to the city, with a reminder that speed limits were meant for the "safety of all."

Mayor Lowe praised the sideline business done by the elevators, believing it welds a closer community spirit between the farmers and urban population.

VICE PRESIDENT C. A. Woods, Plankinton, made the response, wondering while he did so whether all the delegates realized and fully appreciated all the benefits they can get from convention contact with others of similar interests.

Hedges on Hazards

HAROLD HEDGES, Washington, D. C., economist from the Cooperative Research & Service Division of the U. S. Department of Agriculture, had for his subject, "Risks Involved in Operating Farmers Elevators."

Hedges named two classes of risks. The insurable kind, he said, may be anticipated, and insurance protection may be purchased to cover them. These include such hazards as fire and tornado. But the only business protection in the day to day operation of an elevator, is sound and efficient management, he said.

A price risk exists in the carrying of both grain and sideline inventories. Grain price risk is reduced by efficient hedging practices which clinch the profits on the original cash purchase of grain thru sale of an equal amount of futures, or thru selling purchased grain "to arrive."

Using a chart averaging the results of a three-year study of 80 elevators in Southeastern South Dakota, which were divided into two groups composed of elevators that hedged purchases of cash grain and elevators that did not hedge, Mr. Hedges proved his point. The chart showed:

	Average gross margin per bu. wheat	
Year	Hedging Elevators	Non-hedging
1936-37	7.5c	10.7c
1937-38	4.3	1.9 loss
1938-39	4.4	2.8
Average	4.9	2.9

"Proper hedging of grain purchases," said Mr. Hedges, "enabled the elevators following this practice to level out their average gross income, and to maintain a much higher average income over a period of years than was possible for the elevators that did not hedge."

"It may be true that over a sufficient number of years the non-hedging elevator might average out as well on annual gross income. But for such elevators there is ever present the danger that a really big loss might force liquidation of the elevator."

Price protection on inventories of sidelines is not available except as management keeps inventories low, thru reducing risk of loss thru sudden changes in price. The next few years may see sharp variations in prices on different items handled by elevators.

The credit risk may be entirely eliminated thru application of a strictly cash basis for sales. Experience of those who have tried it showed a slight loss of business when a strict

cash policy was enforced, but this was more than offset by increases in business that followed. While not recommending a strict cash policy I am convinced that a carefully thought out, sound credit policy can be made to work if the manager will stick to it.

Success in operation of an elevator comes from employment of a capable manager. While many applications are made for positions that open up, brains are always at a premium. The cost of a manager is the salary you pay him, plus the cost of the mistakes that he makes. Good managers make fewer mistakes, therefore they are worth higher salaries.

Business risk is involved in erecting an elevator. Those who put up an elevator expect it to pay for itself in the due course of time, and return the investment to the owners. Whether it can do so depends upon its continued successful operation. If its railroad is torn up the investment may become valueless. If livestock production replaces grain production the investment may become a loss. Such risks are difficult to anticipate, and are always a possibility.

Protection from crop hazards is available thru setting up reserves. This is more important in high crop risk territories where wind, drought, and wide swings in weather conditions occur from year to year, than it is in areas that produce about equally well from year to year. Thus a large reserve is much more important to an elevator in South Dakota than it is to an elevator in Illinois or Iowa. In the Great Plains area an elevator is wise to carry liquid reserves sufficient for at least one year's operation.

With farmers' elevators located at more than half the shipping points in South Dakota, said Mr. Hedges, gross margins on grain have dropped to the approximate cost of operating the elevator under normal conditions. These low margins demand efficient operation and efficient management of the elevator if it is to stay alive and make an occasional dividend to pay to its stockholders.

Discussion among the delegates after Mr. Hedges' talk, centered on physical participation by boards of directors in taking inventories of grain and merchandise stocks. "More elevators," it was pointed out, "go broke from excessive extension of easy credit, and from payment of patronage dividends when these are not justified, than from any other two causes."

PRESIDENT JACOBS appointed the following com'ites:

LEGISLATION: Christ Jensen, Putney, chairman; J. H. Benidt, Claire City; A. M. Hoven, Selby.

RESOLUTIONS: W. M. Urevig, Wallace; M. J. Suttor, Castlewood; R. B. Bryan, Groton.

Movie

A. F. NELSON, sec'y of the Minnesota Farmers Elevator Ass'n, Minneapolis, in a movie, traced the history of the farmers elevator movement, illustrated ass'n services, and showed the development of the country elevator from a simple flat warehouse for grain thru the horse power, gas power, and electric motor stages of development; and from the single commodity house to the farm service institution with coal pockets, feed grinding and mixing plants, seed cleaning plants, and sales rooms for farm supplies as well as modern elevators. This picture was followed by another on soil erosion, loaned by the Farm Credit Administration.

Wednesday Morning Session

PRESIDENT JACOBS presided at the second session.

H. O. PUTNAM, Minneapolis, executive sec'y of the Northwest Crop Improvement Ass'n, was the first speaker.

Crop Improvement

Mr. Putnam explained means and methods whereby elevator managers can encourage improved seeding practices and the sowing of pure varieties of grains in their communities.

Buyers, he said, are interested in pure commercial grains. They will pay a premium for pure varieties and pure classes over what they will pay for mixed grains or mixed classes of wheat. This is because different varieties and classes serve different purposes. His address appears elsewhere in this number of the Journals.

Responding to questions, Mr. Putnam recommended Thatcher wheat as most suitable for South Dakota production. Rival and Pilot wheats are still on trial. Reward, while a fine show wheat, and frequent winner of top rating at the International Grain & Hay Show, has not proved popular in the northwest as a commercial wheat, probably because it is not rust resistant, tho it is so early it often beats the rust.

Durum wheats recommended by the speaker were Mindam and Kubanka. Barley recommended was Odessa.

Prepare for the Future

PRESIDENT JACOBS, in a presidential address, warned that strong likelihood of an economic depression lies ahead of the elevators. "When war ends," he said, "there will be a period of economic readjustment. It may come in six months, it may come in a year, it may come in three years."

"But you are forewarned. You know such adjustment lies ahead. You have a period in which you may prepare for it by putting the financial structures of your institutions in good condition to weather the storm."

"Failure to build and maintain a sound financial structure has been the greatest single cause of failure among farmers elevators. Now is the time to reduce your accounts receivable, pay up your debts, and build a backlog of reserve funds that will carry you thru the tough times ahead."

"It is the duty of board of directors to take such action as is necessary to insure the building of a sound financial structure for their elevators. They owe it to themselves, and they owe it to their constituents."

Phosphate Pays

H. R. SUMNER, manager of the agricultural department of F. H. Peavey & Co., Minneapolis, showed a three reel motion picture to illustrate the benefits from use of phosphate on soil. Part of the movie was in color, helping materially to emphasize the miraculous increases in plant strength, and grain yields thru application of 50 to 60 lbs. of agricultural phosphate per acre when seeding the grain. Convincing comparisons appeared in this movie which showed phosphated strips in ordinary fields, and phosphated fields and untreated fields of grain growing side by side.

"Not all northwestern land needs phosphate," said Mr. Sumner. "But you can satisfy yourself regarding your need by spending a couple of dollars for a bag of phosphate and applying it to a strip of your seeding across the field. If your soil needs phosphate the results will speak for themselves."

Methods of applying phosphate were shown. The common method for tests was pre-mixing of the seed and the phosphate before seeding; for regular use a special phosphate box was attached to the grain drill.

Commodity Loans

L. H. PARKER, Huron, member of the South Dakota A.A.A. Com'ite, said South Dakota farmers have more than 35,000 C.C.C. loans on corn held in farm cribs under seal, and a similar large number of loans on wheat both on farms, and stored in elevators.

"IN A FEW MONTHS we will come to the due date for wheat loans, and these loans will have to be liquidated," he warned. "It appears from present prices that much of this wheat will have to be taken over by the Commodity Credit Corp. and carried for

a while. Our export markets have been lost and there is no outlet for the present heavy carry-over of both government and free wheat. Promise for a strong rise in the price of wheat is dim.

"IT IS A DUTY of the elevator managers who are possessed of control cards in their communities, to follow up loan due dates, warning farmers who have wheat loans to liquidate before possession of the wheat reverts to the Commodity Credit Corp. The loans fall due eight months after they are taken out, or on April 30, whichever is later. Unless loans are repaid and the wheat reclaimed before the due date the C.C.C. will take possession of the wheat involved. When this happens the farmer has lost his chance to benefit from any increases in price which may have been available to him. Most of the loans in South Dakota come due about April 30.

"Elevators have cooperated splendidly with the C.C.C. in accepting wheat which has been stored on farms under loan and is delivered later to the C.C.C. In such cases the elevator operators should remember that this wheat is covered by state A.A.A. grading, and that these grades apply."

IN SETTLING with elevators for charges on government owned wheat, said the speaker, the C.C.C. holds back 4/10s of 1% of the charges until such time as all of the wheat in the lot stored has been shipped and the accounts closed. Payment of elevator charges are scheduled to be made four times a year, but sometimes the C.C.C. has been late in making payment.

Mr. Parker explained the new C.C.C. loan program applying to 1940 corn, the rules covering three-year loans at 61c per bu., and the circumstances under which corn may be delivered earlier. While landlords are permitted to deliver their corn to the C.C.C. in satisfaction of loans earlier than the three-year maturity of the loans only in event they lose possession of their land, tenants can deliver at any time after one year by simply giving their county com'ites 30 days advance written notice of their wish.

Most of the steel bins in South Dakota are in the southeastern section of the state, said the speaker. This year only 136 additional steel bins have been erected to hold new deliveries of C.C.C. corn near the point of production.

"We have just received notice," said Mr. Parker, "that the corn in steel bins is to be liquidated at 65c per bushel. The country

is filled with a large supply of corn. There are 701,000,000 bus. in the carryover, which is the largest on record."

Mr. Parker mentioned that Congress and A.A.A. officials are being subjected to a great deal of agitation for an increase in the loan values on farm commodities. The values sought run from 80% to 100% of parity, or around 80c per bu. on corn and about \$1.03c per bu. on wheat. He had no comment to make beyond this information, leaving implication to the next speaker.

Canada's Experience on Wheat

ALFRED L. JOHNSON, Huron, member of the state A.A.A. com'ite, reviewed the effects of Canada's wheat policy on Canadian farmers, warning that building of an uncontrollable surplus may leave the farmer without a market.

"Instead of an acreage allotment," he said, "the Canadian wheat farmer has been given a market allotment. He can sell to the government buying agency only a given number of bushels of the wheat he raised, and for this he receives only 50c per bu. He can sell the remainder of his crop into private hands, but there is no elevator space available, and no private buyers want to pay him anything for the wheat that is left on his farm. Canada's export market, too, has been severely curtailed in spite of a "most favored nation" policy for sales to Britain. Even without the British stores, and the war which has crippled transport, England requires only a little more than 200,000,000 bus. of wheat annually.

The result is that Canadian farms are overflowing with wheat, and Canadian farmers have another crop coming on next year to add to a vast surplus for which there is no market.

"We don't want something like that to happen in this country. It is your help in holding farmers within their acreage allotments which will hold down production and save commodity loans for them."

Volume Increases Chances for Profit

L. M. BROWN, instructor in Agricultural economics at South Dakota's state College, Brookings, gave results from a 3-year survey of farmers elevators in South Dakota.

He criticized failure of boards of directors to explain to their sons the manner in which cooperative enterprise works, and to point it out as a democratic way of doing business. He urged putting more young men on boards of directors as a means of train-

ing them for future leadership, and intelligent business management, pointing out that the average age of directors in 25 of the cooperative elevators covered in his study was 55, and that one cooperative had 5 men on its board who were over 60.

In a table of averages compiled from the records of 189 cooperative elevators in South Dakota, Mr. Brown demonstrated that 80% of those elevators with less than 100 members handled less than 100,000 bus. of grain annually, and only 20% handled over this amount; 71% of those with from 100 to 200 members handled less than 100,000 bus., while 29% handled over this amount; 51% of those with more than 200 members handled less than 100,000 bus., while 49% handled over this amount. Thus he sought to show that the more members a cooperative had the better was its chances for handling a large volume of grain.

In another table Mr. Brown related volume to operating results, showing that 61% of those elevators handling under 50,000 bus. of grain reported an operating loss, while only 39% reported a gain; 25% of those handling from 50,000 to 99,000 bus. showed a loss, while 75% showed a gain; 21% of those handling 100,000 to 149,000 bus. showed a loss, while 79% showed a gain, and when the volume went over 150,000 bus. annually the number showing a loss on operations dropped to 9%, while the number showing a profit climbed to 91%.

A third table exhibited by Mr. Brown showed the influence of sidelines on elevator profits, as compiled from the records of 215 cooperative elevators, and using 100,000 bus. annual volume as the breaking point to distinguish between large and small volume elevators. This table showed that 51% of the elevators with small volume in both grain and sidelines reported a loss, while 49% reported gain; 40% of those with small grain but large sideline volume showed a loss while 60% showed a gain; 25% of those with a large grain business but small sideline business reported a loss, against 75% reporting a gain, and only 3% of those with a large volume in both grain and sidelines showed a loss, while 97% showed a gain.

Wednesday Afternoon Session

PRESIDENT JACOBS presided over the third session. This session was opened with a song fest under the leadership of R. O. Roberts, of Cresbard, and an enterprising accordion player. F. Wilbur Drown's (Redfield) rousing tenor led him into difficulty. He was forced to sing a solo.

War and Transportation

CARL R. GRAY, JR., executive vice president of the Chicago, St. Paul, Minneapolis & Omaha railway, Chicago, explained what happens to railroads when war comes.

In his historical analysis Mr. Gray described the relationship between war and transportation, pointing out that railroads are the key to massing of men and materials ready for battle.

"It is generally accepted today," he said, "that preparation for defense of our country is necessary. The railroads are prepared." He went on to explain that a military railway service has been planned by this government to be executed in the event of war. The plan involves 2,000 officers and 75,000 or 80,000 men, trained in all phases of railroad operation. The railroads are sponsoring the plan. Recruiting of men for commissions in military rail service will be done in and by the railroads. "Patriotic men will go to war if their country is threatened," said Mr. Gray. "Railroads will lose these capable patriots in any event, and thru their sponsorship of the plan they assure

Officers and Directors, Farmers Elevator Ass'n of S. D.



L. to R., Seated: Andrew Nelson, Colman, director, and President W. J. Jacobs, Faulkton. Standing: S. S. Judy, Forestburg, 2nd vice president; Albert M. Hoven, Selby, director; C. A. Woods, Plankinton, 1st vice president; M. J. Suttor, Castlewood, director; Clifford C. Anderson, Aberdeen, sec'y; C. G. Anderson, Aberdeen, retiring sec'y; Henry Hinrichs, Claremont, treasurer.

The GRAIN DEALERS JOURNAL

efficient placement of these men in military transportation service."

Jobs of the Utilities Commission

C. A. MERKLE, Pierre, of the Public Utilities Commission, spoke briefly to call attention to the range of activities of his commission.

He made a strong plea for the railroads. "For several years," he said, "shippers have had no difficulty in getting cars when they wanted them. But a new problem has arisen. It is the abandonment of railroads." He referred to applications of the M. & St. L. railroad to the Interstate Commerce Commission for permission to abandon 120 miles of line in South Dakota which would leave 14 elevators without means of rail transport. "The Commission is doing everything it can to stop this abandonment of rail lines. It is difficult to visualize in what stage of development the great Northwest plains would be without rails.

"But we might as well recognize," he added, "that the trucking industry has grown by leaps and bounds in the last 10 years, and it is here to stay. South Dakota has 2,300 truckers operating legally 3,700 trucks in both intra-state and interstate commerce. Trucks have become a part of our every day living."

Adding to his statistics, Mr. Merkle reported that South Dakota has 2,600 elevators, protected with \$6,725,000 worth of bonds under South Dakota law as assurance of safety for the holders of their warehouse receipts. "Warehousing," he said, "has become big business in South Dakota."

Thin Rye Grades

R. T. MILES, Chicago, of the Board of Review, pointed out the need for changes in rye and oat grading standards to meet commercial requirements.

"Practices in merchandising of rye have passed thru an evolutionary stage during the last five years that makes the present standards unsuited to commercial requirements. For this reason hearings are being held in various sections of the country on proposed changes in these standards," he said.

Mr. Miles explained that the proposed changes consist of adding the word "plump" to rye which has been sized in terminal markets to supply rye millers and distillers with plump kernels; and to add the word "thin" to rye grades covering the thin rye discarded by the sizing machines and sold to the feed trade. Determination of the amount of thin rye would be made by the chess hand sieve.

"Not more than 10% of the receipts of rye at terminal markets would fall in either the 'plump' or the 'thin' classifications," said Mr. Miles. "Most rye would come within normal tolerances and would be graded as straight rye with no additional designation. But we believe that the market value of all rye is depressed by the small amount of 'thin' rye which is thrown back on the market by terminals which have no means of excluding it from the contract grades."

R. H. BLACK, Washington, D. C., in charge of grain standards investigations, presented figures showing that rye millers get 50% extraction of white rye flour from "plump" rye, compared with an 11% extraction from "thin" rye. Yields for distillers show similar marked differences.

A check on grading of country run rye at Minneapolis for the last three years shows that 7% of the receipts in 1938 would have graded "thin," and over 80% straight. The 1939 crop would have graded 16% "thin," over 80% straight, and a very small amount "plump." The 1940 crop to the end of November would have graded 2% "thin," 68% straight, and 30% "plump."

A. F. NELSON, Minneapolis, sec'y of the Minnesota Farmers Elevator Ass'n, invited all delegates to attend the Minnesota

Farmers Elevator Ass'n convention at the Radisson Hotel, in Minneapolis, Feb. 18-20.

PRESIDENT JACOBS noted that another legislative session would open in South Dakota in a few weeks. The ass'n, he said, has appointed a legislative com'ite to keep a weather eye out for any bills which might be harmful to the interests of South Dakota elevators.

Stag and Dance

COMMISSION merchants, machinery manufacturers, coal companies, and insurance companies banded together to prepare for the more than 600 delegates a stag lunch, entertainment and dance at Watertown's Auditorium, Wednesday evening.

Entertainment consisted of several singing and dancing acts following the lunch. Principal entertainment was the big dance that lasted until the orchestra was worn out.

Thursday Morning Session

PRESIDENT JACOBS presided over the fourth and final session Thursday morning.

Resolutions Adopted

THE RESOLUTIONS com'ite presented, and, after brief discussion, the convention adopted unanimously the following resolutions:

SALES TAX AND USE TAX

WHEREAS, it appears that the use tax enacted in our state, applies on the purchase price of goods purchased outside of this state, but does not apply to the cost of transporting goods to their destination, and

WHEREAS, the retail sales tax affecting local retailers applies to their retail sales price, which includes transportation charges; it appears that the retail sales tax still offers the out-of-state seller a price advantage, particularly where large transactions are involved. Therefore, be it

RESOLVED, that this convention go on record as urging changes in the laws to eliminate this disadvantage to our elevators and other South Dakota firms.

SCALE INSPECTION FEES

WHEREAS the 1939 session of the South Dakota legislature amended the statutes relating to the inspection of scales to provide that the fees collected for such inspections be placed in general fund, and

WHEREAS, we are unable to find that a specific appropriation was made from this fund to provide for the making of said inspections, and

WHEREAS, the inability of owners of heavy scales to obtain regular inspections is both a hazard to them and a loss of revenue to the state, be it

RESOLVED, that our legislative com'ite work either for the return of these scale inspection fees to a separate fund, or that a specific ap-

propriation be made to the Public Utilities Commission for the purpose of maintaining adequate inspection personnel and equipment.

GRAIN STORAGE UNDER COMMODITY LOANS

WHEREAS, certain portions of the Uniform Storage Agreement, covering grain under government loan, were in conflict with South Dakota statutes, and

WHEREAS, in the solution of these conflicts, our Public Utilities Commission and South Dakota administrative officers of the A.A.A. met and worked together with our Farmers Elevator Ass'n officers, be it

RESOLVED, that we extend our thanks to both groups for their cooperation to the end that our elevators were enabled to store grain under government loan within the regulations of our state supervisory body. Be it further

RESOLVED, that our officers for the ensuing year continue to support our own Public Utilities Commission as the logical body to supervise and license our elevators; and to resist any attempt to divide such authority, or supplant the principle of state control for this state's elevators.

COMMODITY LOAN SETTLEMENTS

WHEREAS, it has come to our attention that in many instances settlements of the Commodity Credit Corporation for charges due our elevators are delayed from two to four months, be it

RESOLVED, that we urge upon this agency the necessity for speeding these settlements as a means of relieving cooperating elevators from the financial burdens caused by carrying these charges on their books.

A final resolution expressed the appreciation of the ass'n for the good work of its officers, the information brought by speakers, and the hospitable spirit of the host city and its officials.

Election of Officers

District No. 6 re-elected S. S. Judy, Forestburg, as a director, and this election was approved. District No. 7 elected Albert M. Hoven, Selby, to replace Joe Lapka, Leola, as a director, and this election was approved.

The convention unanimously re-elected W. J. Jacobs, Faulkton, as president and director at large.

Hold-over directors are Otto Tieke, Parks-ton, District 1; Andrew Nelson, Colman, District 2; C. A. Woods, Plankinton, District 3; M. J. Suttor, Castlewood, District 4, and Henry Hinrichs, Claremont, District 5. Adjournd sine die.

Directors Meeting

A meeting of the board of directors immediately following adjournment of the general business session, named Mr. Woods as first vice president, Mr. Judy as second vice president, and Mr. Hinrichs as treasurer,

Tri-State Mutual Grain Dealers Fire Insurance Company

SAFE FIRE AND WINDSTORM INSURANCE

Our Policies Are Non-Assessable

A steady, healthy growth means SAFETY AND STABILITY. This is indicated by "Comparison of Surplus" below which shows the growth of the company for the last ten years:

1930	\$158,662.39
1932	\$166,241.07
1934	\$252,079.53
1936	\$354,403.61
1938	\$430,211.54
1939	\$459,063.17

For Rates, Write

E. H. MORELAND, Secretary
LUVERNE, MINN.

and appointed Clifford C. Anderson, Aberdeen, former assistant sec'y, to the sec'yship to fill the place vacated by his father, C. G. Anderson.

Sioux Falls was selected as the place for the 1941 convention, dates to be set later by ass'n officers.

South Dakota Exhibits

H. C. HAGEN exhibited a Perfection Flax Tester, and distributed circular matter on Cleland grain cleaners, hullers and scarifiers, and double spiral seed separators.

R. R. HOWELL CO. displayed a combination feeder and magnetic separator, Calumet buckets, flexible spouting, motorized head drives, and a Moist-o-meter.

A. E. STALEY MANUFACTURING CO. distributed literature on Staley soybean products.

NORTHWEST Crop Improvement Ass'n set up an exhibit showing samples of seed born diseases like barley blight, covered smut, wheat scab, stinking smut, and others that may be controlled with Ceresan; and a one-third size operating model of the Minnesota Seed Grain Treating Spout.

A. T. FERRELL CO. exhibited a large size cleaner.

South Dakota Convention Notes

BUSIEST and biggest single entertainment place about the convention was the B.T.U. Room set up by 29 cooperating coal companies. Music by a guitar and an accordian was continuous. So were liquid refreshments.

CONVENTION souvenirs were calendars for ladies only from Tom Ibberson of T. E. Ibberson Co.; cartoons on where the "Great American Dollar" goes by Tom Reed; notebooks by Hart-Carter Co.'s Cliff St. Cyr; combination key chains and driver's license containers by Howell Co.'s E. W. Mueller; and pencils from Tri-State Mutual Grain Dealers Fire Insurance Co., Mr. Nelson.

THE ASS'N'S President W. J. Jacobs, of Faulkton was elected state senator from his district at the last election.

The Canadian Wheat Problem

The problem is complicated still further by the presence of a store of wheat accumulated from the 1939 and 1940 crops. This wheat forms a reserve that may some day prove useful, but, in the meantime, is a serious embarrassment to the internal movement of wheat. Without present stocks, too, a decision on policy on next year's crop might be delayed in the hope that prospects would brighten, but the fact that elevator storage accommodation will be strictly limited forces immediate action of some kind.

As far as can be seen now, all existing elevator accommodation will be filled to capacity by July 31, 1941. Mr. MacKinnon has intimated that additional bins may also be constructed to handle whatever wheat of the 1940 crop still remains on farms at the end of the crop year. Nothing has yet been decided, however, about taking delivery of the 1941 crop. If no further bin space is provided over and above what is necessary to take delivery of the 1940 crop, space will open up only from week to week as wheat moves into consumption, the amount which can be accepted over the year being equal to disappearance into domestic and export channels.

Such a strict limitation on deliveries means an equally strict limitation on the flow of income from wheat. Will some system of financing on farm-held grain become necessary? The whole question of storage accommodation and marketing arrangements demands the most careful study.

Wheat plans for 1941, then, must face and deal with two basic difficulties: curtailed export markets and limited elevator accommodation. In other words, our problem is not only how much wheat to grow, but where to put what we do grow, and how to pay farmers for growing it.—James Richardson & Sons.

Inferior varieties of wheat are said by millers and grain men to be given higher loan values because of higher test weights; and the Texas State A.A.A. com'ite promises next year to establish a differential that will discourage planting of the poorer kinds.

Safe Heat for Elevators

By C. M. PARK, Engineer
Mill Mutual Fire Prevention Bureau

Anyone who had just spent a couple hours of a January day in the driveway or cupola of an elevator would be likely to believe that of all the fire hazards associated with the operation of such a plant, heating would be the least important. But elevator offices are usually heated regardless of what the temperature may be in the rest of the plant, and fires which may be charged to office stoves and their associated chimneys and pipes are responsible for a substantial portion of the premium paid annually by elevator operators for fire insurance.

It goes without saying that most of these fires are entirely unnecessary, and that they could be avoided. IF the stove is in good condition and is properly installed with sufficient clearance from combustible material and with proper protection of the floor underneath, and IF the stove pipe is new and is installed with proper clearance and support, and IF the chimney is well built from the ground up and is provided with a suitable flue lining, and IF proper care is always used in controlling the fire and in removing the ashes, the ordinary coal burning office stove will provide an inexpensive and a safe source of heat. The danger appears to lie in the IFS, and the worst of the group is the last. Careless operation of stoves causes more fires than all of the other hazards associated with heating equipment.

But let's look at some of the other conditions—conditions that are entirely under the control of the plant management, and which, if given proper attention, will largely offset the less controllable hazard of careless operation.

TAKE THE STOVE ITSELF. A cracked fire-pot that was to have been replaced before cold weather may burn the plant before spring. It should be replaced now—today. That broken leg, or the one that has been displaced by a couple bricks may let the stove tip over some cold morning and spill fire all over the place. Don't wait until next summer to fix that. A draft door that is broken or out of order is likely to let a fire get out of control one of these days, and you will have the stove and pipe red-hot from ash pit to chimney. And how far is the stove from the nearest combustible wall or shelf or desk or chair, and are there any clothes hanging near the stove?

Hot stoves have frequently set fire to wood more than two feet away, and where at least three feet of clearance cannot be provided, the combustible material should be protected by a metal shield with a generous air space behind it. Does the floor protection extend far enough from the stove on the sides and back to protect the floor from radiated heat, and does it extend far enough in front to catch any hot coals or ashes that may fall from the stove? Better check up on these things or the plant may not be there some morning when you come down.

AND THE STOVEPIPE. Is it in good condition or is it rusted about through? Are the joints tight and is it properly wired to the ceiling and to the chimney, or is it ready to fall down in a shower of sparks the first time you give the grate a good shaking? How much clearance is there between the pipe and the ceiling or other combustible material?

A red-hot stovepipe may ignite exposed wood at a distance of more than two feet, and metal shields with an air space behind should be provided wherever the clearance is less than three feet. Incidentally, plaster offers very little protection for wood lath or joists behind it, and a fire in the ceiling behind the plaster is likely to get a good start before it is discovered. And don't forget the damper in the pipe. Operating a stove without a damper is like operating a steam boiler without a safety valve.

CHIMNEYS are innocent looking piles of brick under ordinary conditions, but the number

of fires they cause keep the fire insurance companies awake nights. One of these mornings when it isn't too cold, try building a smudge fire with a little damp paper in the stove. Then cover the chimney with a piece of tin and count the number of cracks the smoke leaks out of. You may be quite surprised, and if you remember that any crack that leaks smoke will also leak sparks, you may be a little frightened also.

A spark from a chimney in an attic may start a fire that will not be discovered until it is beyond control. The time to have those cracks sealed is right now before a spark gets out, and if there are very many cracks the chimney should be re-built. And another thing. Keep the chimney clean. A chimney burning out on a dark night will make a beautiful display of fireworks, but that display may turn out to be a great deal more spectacular if one of the sparks happens to lodge under the siding of the elevator or in the driveway.

DURING THE LAST few years, small oil burning stoves have become increasingly popular for heating elevator offices. These units have much the same appearance as the cabinet type of coal burning stove, and under proper circumstances, they offer a convenient and safe method of providing heat. There are, of course, certain hazards inherent to the handling and burning of fuel oil, and proper safeguards against those hazards are of primary importance.

IN THE FIRST PLACE, the stove should carry the label of Underwriters' Laboratories, Inc. This label means that the stove has been tested in the Laboratories, and these tests have shown that the stove itself, the fuel feeding arrangement and the safety shut-off devices have been combined in a heating unit in which fuel oil can be burned with safety. It is important that the stove you buy have this label in order that you may be sure you have a safe heating device. Stoves of this type are usually equipped with an oil tank of five gallons or less attached directly to the frame of the stove, although labeled stoves designed for a separate fuel tank of not more than ten gallons capacity are on the market.

OIL BURNING STOVES should be permanently mounted and attached to the floor with screws to guard against the possibility of their being tipped over. They should be piped to a good chimney in the same manner as for a coal burning stove, and the same clearances from combustible material should be provided. Under ordinary conditions, the stovepipe will be cooler than with a coal burning stove, and the pipe and chimney will keep clean, but there is considerable probability that faulty operation of the burner may produce heavy soot deposits in the chimney and the pipe. The burning out of such deposits is just as dangerous as with a coal burning stove. It is important also that an oil burning stove be piped to a flue which will always provide the correct amount of draft, and where there is any likelihood of down-drafts in the chimney, such a stove should not be used. Under such conditions, the flame may be extinguished by a back-draft, and the subsequent feeding of oil to the hot burner may fill the stove, stovepipe and chimney with explosive oil vapor.

With any oil burning stove, it is very important that no change be made in the fuel supply arrangement. A labeled stove with an integral fuel tank mounted on the stove itself is, when properly installed, as safe a device for heating an office as could be desired, but the substitution of a separate fuel tank for the self-contained tank may result in a definitely dangerous heating arrangement.

It is important also to burn only the type and grade of fuel oil for which the stove is approved and which is recommended by the manufacturer, and don't let an oil salesman sell you anything else. Never try to burn crank-case drainings in an oil burning stove or the life insurance companies as well as the fire

The GRAIN DEALERS JOURNAL

The Canadian Board Markets Wheat

The Wheat Board sales expense for handling Ontario winter wheat for the crop year 1939-40 was higher than would have been the case had this wheat been marketed by private dealers according to opinions of the trade expressed following the making public of costs by the Canadian Wheat Board. Total amount of wheat sold from the crop of 1939 was 4,254,935 bus., from which it realized \$3,241,355. The cost of this wheat to the board was \$2,957,301, leaving a surplus of \$284,054, of which \$203,324 was spent for handling and administrative charges. The balance of \$80,729 is now being distributed pro rata to the holders of participation certificates, these being the farmers who sold the wheat to the board.

Rice Prices Rising

By JAS. H. GLASS

Stuttgart, Ark.—Rice prices are averaging considerably higher than those of last year, millers report. The market started low but has been gaining steadily since the season opened.

Stuttgart mills are paying higher prices for rough rice than the clean market seems to justify, one miller said, altho he anticipated further advances in prices for clean rice after the first of the year. Either the market for clean rice will rise, or the market for rough rice will fall, he explained.

A strengthening influence has been heavy purchases by Cuba. The Cuban export market will buy 1,000,000 to 1,500,000 pockets (100 pounds clean rice), more this year than last, it is estimated.



Merry, Merry Christmas!

Ebenezer Scrooge: "Bah! humbug! Merry Christmas! What right have you to be merry? Out upon Merry Christmas! What's Christmas time to you but a time for paying bills without money; a time for finding yourself a year older, and not an hour richer; a time for balancing your books and having every item in 'em through a round dozen of months presented dead against you? If I could work my will, every idiot who goes about with 'Merry Christmas' on his lips should be boiled with his own pudding and buried with a stake of holly run through his heart. He should!"

Scrooge's Nephew: "I have always thought of Christmas time, when it has come round—apart from the veneration due to its sacred name and origin, if anything belonging to it can be apart from that—as a good time; a kind, forgiving, charitable, pleasant time; the only time I know of, in the long calendar of the year, when men and women seem by one consent to open their shut-up hearts freely and to think of people below them as if they really were fellow-passengers to the grave, and not another race of creatures bound on other journeys. And therefore, though it has never put a scrap of gold or silver in my pocket, I believe that it has done me good, and will do me good; and I say, God bless it! So, a Merry Christmas!"

(From "A Christmas Carol," by Charles Dickens.)

insurance companies will have cause to worry. As a final caution, if you buy your fuel oil in drums, keep the drum out of the main buildings and equip it with a pump for removing the oil. A gravity discharge faucet is prohibited by the fire insurance regulations. If you have to carry oil to the stove in a can, be sure it is an approved safety can carrying the label of Underwriters' Laboratories, Inc.

IN LARGE TERMINAL ELEVATORS or mills having small offices on the work floor and the scale floor, it is usually desirable to provide some heat in such offices. Steam heat from a separate boiler house is, of course, safest for this purpose, but is frequently not available. As a rule these small offices can be heated satisfactorily by means of small electric space heaters. These should be of the industrial type approved by Underwriters' Laboratories, Inc., and should be permanently mounted on the wall or floor and permanently wired in conduit. Where electric space heaters are used, the door leading into the elevator proper should be equipped with weather strips to make it dust-tight, and should be made self-closing by means of a heavy closing weight and cable. All other openings into the elevator should be sealed.

In rooms that cannot be sealed against the entrance of dust, ordinary electric space heaters should not be used since the surface temperature of the heating elements may be considerably above the ignition temperature of dust. For such locations, electrically heated steam radiators listed by Underwriters' Laboratories, Inc., are available, and will be found satisfactory for heating the limited areas involved.

The use of heaters operating with any sort of flame are not recommended for offices in large elevators, even though such offices are reasonably dust-tight. All that would be needed for a disastrous dust explosion would be a cloud of dust and an open door.

It will be seen that a wide variety of heating devices is available to the operators of elevators for heating offices, and when properly installed and properly operated, these devices do not involve fire hazards that are particularly serious. However, when such heating devices are defective or are improperly installed or carelessly operated, the danger of fire becomes serious.

The Mill Mutual Fire Prevention Bureau will provide, without charge, information concerning the selection and safe installation of all types of heating equipment, or such information may be obtained simply by getting in touch with your nearest Mill Mutual office. Your letters will receive prompt attention.

Cost of Shrinkage in Weight When Drying Grain

[Concluded from page 534.]

of drying and handling; but these costs must be presented in another table series, and the tendency to err in this is so comparatively small that we will pass over it for the time being.

Illustrated herewith is a page out of our shrinkage cost table series, which we believe will help in explaining the correct procedure, it is about the best we can do until our complete table series are finished and ready for publication.

Farmers' Troubles of Today

Country Buyer: "What is the matter with farming?"

"Well," replied Farmer Bentover, "in my day when we estimated what one could raise on 60 acres we meant corn—not loans."

Effective Dec. 9 future trading in lard, tallow, cottonseed oil, peanut oil, soybean oil, cottonseed meal, cottonseed, peanuts, soybeans and soybean meal are subject to the provisions of the Commodity Exchange Act.

Grain Carriers

Fort William, Ont.—Sixteen vessels will remain here to load grain for winter storage.

The Interstate Commerce Commission has reopened for further hearing the complaint for reduced rail and water rates from Texas and Oklahoma to the eastern seaboard.

Grain for Pacific Coast terminals is being accepted on permits only by the Canadian Pacific and Canadian National Railways as the houses are filled close to working capacity.

Cars loaded with grain and grain products during the week ending Dec. 14 totaled 33,056, against 35,552 cars during the corresponding week of 1939, as reported by the Ass'n of American Railroads.

Portland, Ore.—The S. P. & S. Railroad has petitioned the Interstate Commerce Commission for permission to abandon its tracks on Front Av., depriving several industries in South Portland of rail facilities.

New York, N. Y.—The Merchants Ass'n of New York has sent a protest to the President against his allocation of \$1,000,000 for preliminary borings for his power dam in the St. Lawrence River, as unsound economically and unjustified from the standpoint of national defense.

Indianapolis, Ind.—Finally we have been able to get some reduced grain rates in Indiana. These are generally from all Indiana points to the South, including such terminal markets as Indianapolis, Louisville, Lawrenceburg and Cincinnati. This Association has given its support to the Indianapolis Board of Trade in an effort to get these reduced grain rates in order to compete in part with the itinerant grain truckers.—Fred K. Sale, sec'y Indiana Grain Dealers Ass'n.

Buffalo's Winter Storage Fleet Is Small

By G. E. TOLES

Great Lakes freighters brought more grain to Buffalo in 1940 than in any other year since 1932, except in 1939 when a ten-year record was set, according to an annual analytical report issued by the Corn Exchange of Buffalo.

Total grain receipts in Buffalo this year were 128,840,408 bus. compared with 164,274,946 last year when a war-inspired demand for export wheat brought a flood of grain through Buffalo. Duluth, Minn., this year regained the lead as the port of origin for grain shipped to Buffalo. Ships out of Duluth brought 59,309,163 bushels while Ft. William, which led last year, sent 45,241,453 bus.

The report shows that there are only 34 vessels in Buffalo's Winter grain storage fleet, four more than in 1936 and 1937 when the fleets were the smallest on records that go back to 1922. The fleet this year holds 10,406,888 bus.

Grain Shipments via Lake Near Record Levels

Shipments of grain via lake from Chicago during the 1940 season were the largest with one exception since 1934 according to Lyman C. West, statistician for the Chicago Board of Trade. Clearances of the five major grains were 45,850,000 bus., compared with 42,471,000 in 1939 and 95,531,000 in 1938, he said.

Total shipments of individual grains expressed in bushels were as follows: 1940, wheat, 6,817,000; corn, 38,895,000; oats, 103,000; rye, 35,000; for 1939, wheat, 9,487,000; corn, 32,535,000; oats, 449,000. In 1940 a total of 153,000 bus. of soybeans were shipped compared with 10,467,000 bus. in 1939.

Exports of 25,000,000 bus. of corn to England via Canadian ports during the last few months, representing a sale by the department of agriculture at a large subsidy accounted for about 60 per cent of the total shipments of 39,095,000 bus. of that grain.

Mr. West explained the large decrease in amount of soybeans shipped in 1940, as compared to 1939 as the result of the war, which curtailed export demand. A large part of the soybean shipments in 1939 went to neutral European countries.

Grain and Feed Trade News

Reports of new elevators, feed mills, improvements; changes in firms; fires, casualties, accidents and deaths are solicited.

CALIFORNIA

Monterey Park, Cal.—The city council recently passed ordinance 387 for licensing feed and fuel business for the following year, the fee to be \$12 per year.

Petaluma, Cal.—An 80x14 ft. addition is being built to the Taylor Milling Co.'s warehouse by the Vogensen Const. Co., to be used for grain and feed storage as well as housing company trucks.

Oakland, Cal.—The Albers Bros. Milling Co. has completed construction of its 500,000-bu. elevator here, bringing the total storage capacity of the local plant to over 1,000,000 bus. The new elevator is attached to the company's two story dock building and 8-story cereal and feed processing plant. It is composed of 20 concrete bins, each 19 ft. in diameter and 101 ft. high.

CANADA

Winnipeg, Man.—Dr. F. J. Birchard, for 20 years chief chemist of the board of grain commissioners here until his retirement in 1933 because of ill health, died recently, in a Toronto Ont., hospital.

Edmonton, Alta.—One of three elevators owned by the Ogilvie Flour Mills Co., Ltd., was destroyed by fire recently. Loss included 40,000 bus. of wheat and was estimated at \$50,000.

Wembley, Alta.—The Alberta provincial government has awarded Francis Lloyd Rigby, world wheat king, a scholarship worth \$864 at the University of Alberta in recognition of the grain growing honors won for the province at the recent International Grain Show at Chicago, Ill., U.S.A.

Winnipeg, Man.—W. A. Murphy, vice president of Reliance Grain Co., Ltd., has presented his home here, valued at \$60,000, to the Department of National Defense. It will be used as officers' mess of the Royal Canadian Air Force. Mr. Murphy's only son, Gerald, was killed Sept. 17 in an airplane crash while taking a course for service in the Canadian air force.

Winnipeg, Man.—The general wheat quota of 10 bus. per seeded acre will be increased to 12 bus., effective Dec. 14 at all shipping districts thruout western Canada according to a statement issued by the Canadian wheat board Dec. 13. It is understood that the new quota order will apply to a total of 750 points where the present quotas are less than 12 bus. per seeded acre. Marketing authorities here estimated 25,000,000 bus. of wheat will be moved from the farms under the order. They place distribution at 4,000,000 bus. for Manitoba; 14,000,000 for Saskatchewan and 7,000,000 for Alberta.

Regina, Sask.—A 50c wheat levy was proposed at a conference of agricultural interests held here recently when increasing the processing tax on wheat in Canada, now 15c a bushel, to 50c a bushel was recommended. The proposal was taken under consideration in Saskatoon at a meeting Dec. 16, called by the provincial governments of Alberta, Manitoba and Saskatchewan. Another recommendation made included opposition to any compulsory acreage reduction policy, a substantial increase in the minimum price guaranty for the wheat crop of this year and of 1941, and continuation of the system of delivery quotas on an equitable basis.

COLORADO

Miliken, Colo.—The Williams Grain Co. recently installed barley rolling equipment.

Denver, Colo.—The Rocky Mountain Flour & Feed Millers is a new organization recently formed including in its membership Colorado feed and flour men. The purpose of the ass'n is to study mill problems. Ross Smithson was

chosen president; other officers are J. O. Meford, vice-pres.; I. S. McWilliams, sec'y; and Roger Jones, treasurer. The next meeting of the organization will be held in Denver, Jan. 16.

ILLINOIS

Nashville, Ill.—Hildebrand Seed & Feed Store recently installed a new seed cleaning mill.

Toulon, Ill.—The addition to the Wrigley Grain & Lumber Co. elevator has been completed.

Okawville, Ill.—The Okawville Farmers Elevator recently installed a Model L Kelly Duplex Hammer Mill.

Hillsboro, Ill.—Ware & Barnstable Feed & Flour Co. recently completed construction of a large corn shelter.

Rockford, Ill.—Seller & Son recently sold their grist mill to Merriman & Son, owners of the local grain elevator.

Morris, Ill.—The Norris Grain Co. has leased the old Finnegan grain elevator on the south bank of the Illinois River, which has been idle for several months.

Fairbury, Ill.—The Farmers Grain Co. locker plant, recently opened here, has been incorporated as the Farmers Locker Co., with preferred stock of 800 shares at \$25 each, and 500 shares of common stock, n.p.v.

Broadlands, Ill.—A small blaze at the Broadlands Grain & Coal Co. office on Dec. 1 did a small amount of damage. Early discovery of the fire prevented heavier loss. The company's elevator burned recently.

Bellflower, Ill.—The new 30,000-bu. fireproof elevator of the Farmers Grain Co. is rapidly nearing completion. It is being built by the Eikenberry Const. Co. to replace the one that was struck by lightning on Aug. 26 and burned to the ground.

Lipsey (Mattoon p.o.), Ill.—Plans are under way for the rebuilding of the Big Four Grain Co.'s elevator here which burned recently. The company is a subsidiary of the Cleveland Grain Co. George W. Walker of Mattoon is the general manager.

Mattoon, Ill.—The elevator owned by the Big Four Elvtr. Co. which was destroyed by fire Dec. 5, was located at Lipsey Switch, a siding west of here, and was not the company's large elevator located at Mattoon, which is doing business daily. The Big Four Elvtr. Co. is a subsidiary of the Cleveland Grain Co.

WARNING

C. M. Balsley recently has solicited subscription renewals and collected money from a number of country grain dealers for subscriptions to our semi-monthly Journal without reporting or remitting to us. He has never been in our employ and has no authority to represent us in any capacity. If he endorses your check made payable to our order, or gives you a receipt for money paid for subscription to our Journal, please mail it to us so we can take measures to stop his imposing on grain dealers. Documents will be returned to you as soon as we make photostatic copies. Forging our name to your check is a penitentiary offense.

Grain & Feed Journals

CONSOLIDATED

332 So. La Salle St., Chicago, Ill.

LaPlace, Ill.—Victor Hawthorne, 89, retired grain dealer, died at his home here Nov. 30 after a short illness. He was in the grain and lumber business here for 67 years, operating the Victor Hawthorne elevator. The elevator is leased until June 11, 1941, to the LaPlace Cooperative Grain Co., Paul Ehrlich, manager.

Ashland, Ill.—F. Clark Wallbaum, 41, manager of the Ashland Farmers Elvtr. Co., died Nov. 22 of a heart ailment. He had been confined to his home for several months, but was thought to be recovering slowly. Mr. Wallbaum was a son of the late Fred C. Wallbaum, formerly a president of the Illinois Farmers Grain Dealers Ass'n.

Tuscola, Ill.—Charles A. Bowman, 24, of Washington, Ind., was returned to Douglas County Dec. 1 to face a confidence game charge, complaint signed by Harry Carrell, manager of the Tuscola Co-op. Grain Co., and lodged in jail to await trial Dec. 12. Mr. Carrell swore out the warrant for his arrest after three checks issued by Bowman in payment for grain were returned by the bank on which they were drawn.

Ocoya (Chenoa p.o.), Ill.—James P. McMahon, manager of the Ocoya Co-op. Elvtr. Co., died Dec. 3, aged 61 years. He had been in failing health for the past three months. Mr. McMahon had been in the grain business since the age of 17. He bought grain at Cooksville and McDowell and was manager of the Rooks Creek Elvtr. Co. for 13 years. For the last 20 years he had been manager of the Ocoya Co-op. elevator.

Springfield, Ill.—In a test case Dec. 10 the court ruled that the Illinois truck regulatory act of 1939 is constitutional with the exception of one section. The section invalidated by the decision would make it mandatory upon the state to grant an operating certificate to any trucker presenting affidavits of necessity from 25 prospective customers. The ruling was made by Judge Victor Hemphill of the Sangamon County Circuit Court on a bill for an injunction brought by the Certified Motor Carriers, the Ready Trucking Co., Chicago, and Harry Miller of Taylorville.

CHICAGO NOTES

A. C. Curry, a member of the Board of Trade for many years, is critically ill.

Gerstenberg & Co. have admitted as general partners Frank A. Jost, Jr., and Robert M. Russell.

Fred E. King, 74, who was a member of the Board of Trade from 1898 until his retirement in 1920, died Dec. 2 in Los Angeles, Cal.

Samuel L. Newman, a retired grain broker, was killed recently when an automobile in which he was riding plunged from a slippery highway near Laguna Pueblo, N. M.

Members of the Board of Trade on Dec. 20 voted against the five amendments to the rules of the Board published on page 491 of Dec. 11 number. The amendment assessing fees on trades was lost by 474 to 227.

A new low price in more than 45 years for memberships in the Chicago Board of Trade, \$450, was posted recently, representing a decline of \$75 from transfers of the preceding week. Posted offers were at \$500, highest bid, \$450.

Trading sessions on Christmas eve were shortened on the Chicago Board of Trade and many of the major commodity markets as will also be those on New Year's eve. The Board of Trade and the New York Produce Exchange ended dealings at noon.

Memberships in the Board of Trade have been purchased by Floyd C. Wykoff, Decatur, Ill.; Charles C. Davis, Pasadena, Cal.; Jack N. Greenman, Fort Worth, Tex., care of Uhlmann Elevators; David E. Newman, Lehmann, Marble & Newman, New York, N. Y.; D. P. Crosgrove, Chicago; Robert V. Nehrbas, Parrish & Co., New York, N. Y.

The GRAIN DEALERS JOURNAL

James A. Begg, 58, a member of the Board of Trade since 1907 and a broker in the oats pit, died Dec. 20 in Mercy Hospital after an illness of several weeks. For several years he was chairman of the Board of Trade Gratuity fund, and was a director of the board from 1924 to 1929, also having served on several of its com'ites.

Members of the Chicago Board of Trade recently voted 407 to 340 against a proposed change in the rules of the exchange which would have assessed brokers and commission houses a small fee on all cash and futures transactions. Its sponsors said the fee would eliminate a special annual assessment of \$150 now levied on members of the exchange for expenses. In addition members pay yearly dues amounting to \$250.

Extension of a reduction in the interest rate on the Chicago Board of Trade's first mortgage bond indebtedness for at least another year has been arranged, the exchange announced Dec. 18. The amortization payment of \$200,000 has been deferred, it also disclosed. Northwestern Mutual Life Insurance Co., of Milwaukee, Wis., holder of about \$8,500,000 of first mortgage bonds of the Chicago Board of Trade Safe Deposit Co., owner of the building occupied by the exchange, agreed to the extension according to the announcement.

Plans are under negotiation whereby the office of Stein, Brennan & Co. will become the Chicago office of Bear, Stearns & Co., New York brokerage house. The two houses have been mutual correspondents for the last seven years. The Chicago firm partnership will voluntarily dissolve on Dec. 21 to merge its facilities with the New York house. Service to customers will be continued from the present address with essentially the same personnel, it was announced. L. Montefiore Stein and Leonard M. Spitzglass will manage the local office of Bear, Stearns & Co. Mr. Stein has been a partner with the Chicago firm since 1913. Stein, Brennan & Co. has been in business for 50 years, the firm first being known as Finley Barrell & Co., later as Block, Maloney & Co., and in 1920 it became Stein, Alstrin & Co., the present firm name being adopted in 1933.

INDIANA

Glenwood, Ind.—The Glenwood Grain Co. recently installed a Model L Kelly Duplex Hammer Mill.

Greensburg, Ind.—The Garland Milling Co. reported its plant was damaged slightly during the high winds on Armistice Day.

Tocsin, Ind.—Tocsin Lumber & Grain Co., installed an Ajax hammermill and complete hay cutter, bought from the Sidney Grain Machinery.

Huntertown, Ind.—Miss Frieda Steiner, manager of the Huntertown Grain & Lumber Co., and Robert W. Sible were married Aug. 19. Mrs. Sible is one of the few women elevator managers.

Galveston, Ind.—We have installed a new 15-ton scale with 22 ft. platform complete with weightograph in our elevator and have purchased a new 35 ft. coal conveyor.—Bahler Grain & Feed Co.

Lafayette, Ind.—Ralph Guenther, former manager of the Checkerboard Elvtr. Co. office of Ralston Purina Co. in Minneapolis, will become manager of the Ralston Purina Co. soybean processing plant, after Jan. 1, succeeding the late Jesse W. Young.

Indianapolis, Ind.—New members recently enrolled by the Indiana Grain Dealers Ass'n are Simpson Grain Co., Simpson and Uniondale; John M. Holder Elevator, Clifford; Woodburn Equity Exchange, Woodburn; Adams & Morrow, Inc. Princeton.—Fred K. Sale, sec'y.

Winchester, Ind.—Our New Deal governor cracked down on the automobile and truck owners in order that they might not use 1940 license plates for cars and trucks, making the last day of December the dead line for payment to avoid violating the law.—P. E. Goodrich, Goodrich Bros. Co.

New Albany, Ind.—John H. Shine & Co., the second oldest feed and grain company here, founded in 1889 by John H. Shine, who died in 1934, and the late Lewis Thorn, has been sold to Richmond H. Ruoff. Mr. Ruoff took possession of the business Nov. 30. The company will continue to operate under the same name, doing a wholesale and retail business in feeds, grain and flour. During the past few years it has been managed by Vinton S. Nunemacher.

Columbia City, Ind.—The Columbia Grain Co. recently completed extensive remodeling of its plant including the raising of the cupola about two stories in height. A new sheller has been installed in the basement from which corn and cobs are elevated to the cleaner after shelling. A new cleaner has been added doubling the plant's cleaning capacity. A new and larger dump pit has been installed and the plant's electrical equipment has been completely overhauled and replaced. All power used at the elevator is by individual motors.

Greencastle, Ind.—The Miller Grain Co. has assumed charge of the Smith Feed & Grain Co., often referred to as the South End Elevator, following its purchase of the business early this month. The plant has been closed until about Jan. 1, during which time it will be remodeled and additional manufacturing equipment will be installed. The mill is to be made the manufacturing headquarters of Miller's Quality Feed. Harley Miller, new owner, stated. James Brothers, with the Miller Grain Co. for about five years, will be in charge of the business. A complete custom grinding and mixing service and seed recleaning will be offered, new machinery being added for the purpose. Miller Grain Co. recently completed construction of an annex to its retail store on North Jackson St., holding a formal opening of the enlarged store on Dec. 14.

IOWA

Granville, Ia.—We have installed a new Superior Cleaner.—Hartog Elevator.

Webster City, Ia.—Albert C. Hoot, 82, owner of the Webster City Milling Co., died recently of a heart attack.

Rock Rapids, Ia.—The Farmers Co-operative Exchange, managed by P. M. Nielsen, has installed an oat huller.

Badger, Ia.—Bert Gray, second man at the Farmers Elevator for the last 20 years, passed away of a heart attack Dec. 14.

Goldfield, Ia.—J. R. Griffin, former elevator manager here, died at his home in Downey, Ia., after a lingering illness.—L.A.G.

Clarinda, Ia.—The Farmers Implement Co. has been incorporated, to deal in farm supplies, grain, livestock, coal, etc. etc. Clark A. Brockman is president of the company.

Early, Ia.—The Farmers Elvtr. Co. recently installed an improved truck lift and remodeled its driveway to give additional length. Wm. Jackson is the manager.—Art Torkelson.

Farragut, Ia.—E. C. Hatcher, assistant manager of the Farmers Grain & Coal Co., had two bones in one of his feet broken recently when a heavy door closed on his foot, crushing it.

Beaman, Ia.—A new Strong Scott head drive, along with new belts, buckets, new motor equipment and all new spouting were installed for the Beaman Elvtr. Co. by the T. E. Ibberson Co.

McNally (Ireton p. o.), Ia.—The Farmers Co-op. Co., owned by David Schuetz, has been purchased by Louis Spelts of Venego, Neb. Mr. Schuetz plans to retire and will spend the remainder of the winter in the south.

Des Moines, Ia.—R. W. Hayden has been appointed manager of the local Geo. P. Sexauer & Son seed cleaning plant and warehouse, taking the place of E. C. Clark, deceased. Mr. Hayden was former assistant manager.

Wapello, Ia.—The Farmers Elevator & Exchange has purchased the old Wapello light plant from the Iowa Southern Utilities, Centerville. The building is being razed and the space will be used for coal storage by the elevator firm.

Onawa, Ia.—Hearing on the proposed reorganization of the Northwestern Milling Co. under the Chandler bankruptcy act before Federal Judge George C. Scott began Dec. 16. Attorneys for several creditors are resisting application to organize.

Dumont, Ia.—Don Edson, sec'y of the Farmers Grain Dealers Ass'n of Iowa, addressed the annual meeting of the Farmers Elvtr. Co. held at the Star theatre the evening of Dec. 12. Following the business session a program of music was enjoyed.

Fort Dodge, Ia.—The Farmers Grain Dealers Ass'n of Iowa, in the discussion contests it is sponsoring in nine districts in Iowa, has entered 151 young people in the contests to present and explain "The Iowa Farmer's Part in Making His Co-operative Function."

Calamus, Ia.—Ellis Mueller, sec'y, has been made executive sec'y of F. Mueller & Sons Co.

Fort Dodge, Ia.—C. A. Bulpitt, who formerly operated the Bulpitt Grain Co. here, is out of the grain business and operating Chet's Cigar Store at St. Petersburg, Fla. He writes, sending regards to old friends and an invitation for them to drop in on him when down his way.

Luzerne, Ia.—Alfred Froning, son of A. W. Froning, will become active manager of the local Froning elevator on Jan. 1, when A. W. Froning goes to La Porte City where he has taken a partnership with his brother L. L. Froning in the operation of L. L. Froning Elevators.

Grand Mound, Ia.—F. Mueller & Sons Co.'s local elevator has been improved with installation of a Roskamp Oat Huller, which doubles the oat hulling capacity of the company's local feed grinding and mixing facilities.

Sulphur Springs, Ia.—Ray Straight, who formerly farmed near Spirit Lake, Ia., is the new manager of the Hansen Grain & Coal Co. and will take active charge Jan. 1 on the retirement of Pat Brown, who has served a good many years in the grain business at Nemaha and Sulphur Springs.—Art Torkelson, with Lamson Bros. & Co.

Faulkner, Ia.—Purchase of the Faulkner Grain Co. elevator, under consideration by the Farmers Co-op. Elvtr. of Iowa Falls, Ia., is undecided. Directors of the Farmers company were asked to inspect the elevator and make the decision concerning buying it after the question was left undecided at the company's mid-year meeting at Iowa Falls, Dec. 14.

Fonda, Ia.—Guy F. Wilde, while returning home from Tucson, Ariz., had the misfortune of upsetting his car at some Oklahoma point. He and Mrs. Wilde in the front seat escaped injury but his daughter, who was in the back seat, suffered some bruises. All were shaken up, but at present seem none the worse for their harrowing experience.—A.G.T.

Miles, Ia.—John L. Franks & Co. are having their elevator completely remodeled and reequipped. New machinery being installed includes a Howell Direct Connected Geared Head Drive with Fairbanks Morse Motor, rubber covered bucket belting, a safety man lift, and a Howell Distributor and Spouting System. The Younglove Construction Co. has the contract.

La Porte City, Ia.—A. W. Froning of Luzerne has taken a half interest in the elevators operated by L. L. Froning as L. L. Froning Elevators here and will assume an active part in their management beginning Jan. 1, to allow L. L. Froning more time for his other interests. Elevator "B" of the three local elevators of L. L. Froning Elevators is being remodeled and a new head and distributor is being installed.

Sloan, Ia.—The Farmers Cereal Co. has filed suit against Harvey Terrell, a farmer, the petition alleging that last July 3 Terrell agreed to sell the company 1,000 bus. of oats at 22c a bushel; that at that time \$25 was paid and again on July 9 another \$20, but that the oats never was delivered. Delivery of the oats valued at \$220 is asked. A temporary restraining order to halt Terrell from disposing of the grain has been issued.

Holstein, Ia.—Opening day for the feed grinding and mixing plant completed by the Farmers Elvtr. Co., managed by L. E. Fallein, was held recently. The feed plant is a two story frame, iron-clad building attached to the driveway of the company's cribbed elevator. In it is a 75-h.p. Jay Bee Hammer Mill, a one-ton horizontal feed mixer, a back-in bulk service shed, and 9 bins. Grinding is dumped in the elevator. In the course of building the feed mill the elevator was covered with sheet steel and the elevator driveway was rebuilt, with room left overhead for construction of additional overhead bins.

Alta, Ia.—The Farmers Elvtr. & Supply Co. was host to about 500 farmers and their wives Dec. 3 at the Legion theatre. Edgar Schuelke, manager of the elevator, was master of ceremonies. Motion pictures were shown and an illustrated address on hybrid seed corn was given. A quiz program followed and music added to the evening's entertainment. The company's annual corn show drew a nice variety of samples, altho the contest was not as large as last year, due to the weather and the fact much corn had not been picked. After 50 score cards have been filled out the scores will be averaged and the winners announced.

KANSAS

Colony, Kan.—The Colony Elevator Co. recently equipped its plant with Calumet cups.

Abilene, Kan.—Willis Myers recently resigned as assistant manager of the Farmers Elvtr. Co. elevator.

Council Grove, Kan.—Benton Burton has moved his feed and seed store into larger quarters on Neosho St.

Ellis, Kan.—Thomas Hayes, 77, manager of the Golden Belt Grain Co. from 1918 to 1938, died recently at his home here.

Weir, Kan.—The Weir Elevator recently installed a new combined sheller and boot, purchased from the Sidney Grain Machry. Co.

Greensburg, Kan.—Thieves recently forced an entrance to the oil warehouse of the Security Elvtr. Co. and carried away 12 gallons of motor oil.

Arkansas City, Kan.—Morris Wilkins, general manager of the Arkansas Flour Mills Co., recently was elected president of the Chamber of Commerce.

Dodge City, Kan.—The Kansas Grain, Feed & Seed Dealers Ass'n recently held a mid-year directors' meeting here. J. E. Ogren is president of the ass'n.

Abilene, Kan.—Roy Ellison has been transferred to the Ralston Purina Co.'s local station from Norfolk, Neb., where he was territory manager for the company.

Leonardville, Kan.—We are contemplating installing a motor driven hammer mill as an addition to our feed business equipment.—Riley Co. Farmers Union Co-op. Ass'n.

Clyde, Kan.—The Clyde Milling & Elvtr. Co. is installing a stand of rolls, two purifiers, a dust collector, flour packer and bran packer and otherwise improving its plant.

St. John, Kan.—The Consolidated Flour Mill will erect a 25 x 44 ft. building on South Broadway where the office is located, the new structure to be used for office and warehouse.

Topeka, Kan.—The dial on a fireproof vault in the office of the Topeka Flour Mills Corp. was hammered off the night of Dec. 9, the lock broken and \$75 in currency taken.

Haven, Kan.—The old flour mill here, built in 1887 and long idle, has been sold to the Red Star Milling Co., Wichita, Kan., and will be razed to make way for a modern elevator.

Hutchinson, Kan.—The Hutchinson Board of Trade held its Christmas party Dec. 19 on the trading floor. Dinner was served at noon. Toys were brought for local charitable organizations.

Great Bend, Kan.—The Barton County Produce Co., operated by Walter Jurgensen and Bert Fugger, has moved to new quarters on Williams St., and is operating under a new name, the Producers Feed, Seed & Supply Co.

Wichita, Kan.—Capt. J. P. McGuire, assistant general manager of the Kansas Milling Co., will leave about Jan. 1 for Camp Joseph T. Robinson at Little Rock, Ark., where he will be in charge of the headquarters company of the 137th Infantry.

Hamilton, Kan.—L. L. Sauder, owner of the Sauder Lumber & Elvtr. Co. of Lamont, Kan., and George Sauder of Madison, Kan., have purchased the local Hoover Feed & Grain Co. George Sauder will be manager of the Sauder Feed Co. of Hamilton.

Topeka, Kan.—Robbers entered the office of the Willis-Norton Mills recently, forced their way into an inner office where they sawed the padlock from a vault, but either by being frightened away or thru haste, overlooked \$27 in the vault. They took with them 300 packages of cigarettes.

Waldeck (Canton p.o.), Kan.—The Cairo Cooperative Equity Exchange is building a 100,000-bu. elevator here, work being done by Chalmers & Borton. The house will be 43x45 ft. with 4 15-ft. cylindrical tanks 116 ft. high, a headhouse 24 ft. tall and 11 intermediate and intervening bins.

Athol, Kan.—Mr. Runyan of Tracier has been named to succeed W. G. Heinrichs as manager of the Athol Co-op. Grain Ass'n and is now in charge of the elevator. Mr. Heinrichs recently resigned after several years of successful service in that capacity. Mr. Runyan has had 12 years' experience in the grain business at Herndon and Tracier.

Courtland, Kan.—Ned Chestnutt of Salina is in charge of the new feed department at the Courtland Grain & Feed Co. Mr. Chestnutt has had considerable experience in grinding and mixing balanced rations for stock. He has been connected with the firm Eberhardt-Simpson for some time. His stay here will be for a number of weeks. The Courtland Grain & Feed Co. has installed new equipment which includes a feed mixer, and will grind and mix all kinds of commercial feeds.

Junction City, Kan.—Two old elevators of the Hart, Bartlett-Sturtevant Grain Co. have been wrecked and will be replaced with modern storage equipment, C. O. Hall, manager, stated. Both elevators were built by the Tylers; one has been standing on the site for 46 years, the other for 40 years, according to Mr. Hall. Both have been in use throughout that time but the equipment has become obsolete. The new storage space will be built as an auxiliary unit to the new elevator built about a year ago, and will be completed next spring. The new units will maintain the storage capacity at 150,000 bus. The Tillotson Const. Co. is doing the work.

Hazelton, Kan.—The Farmers Co-op. Business Ass'n of Corwin, Kan., has awarded contract to Chalmers & Borton for a 100,000-bu. reinforced concrete grain elevator to be built here. The elevator will consist of four 15 ft. diameter tanks 112 ft. high with 12 intervening and overhead bins. It will have a cross workroom and the driveway will be directly thru the center. Equipment will include a 4,000-bu. per hour leg equipped with 25 h.p. Fairbanks Morse Motor and Ehrsam Head Drive, 60 ply leg belt with 12x6 Calumet Cups, overhead Ehrsam Truck Lift with 5 h.p. motor, a 500-pound electric manlift and 10-bu. automatic scale. Work will start at once. E. H. Hedges is manager.

KENTUCKY

Bagdad, Ky.—A customer's truck did some small damage to the plant of R. L. Harrison & Sons on Nov. 28.

Middlesboro, Ky.—The Wilson Feed Co. has been opened for business by J. W. Wilson. Hay, grain, meal and feed will be handled.

Paynes Depot (Lexington p.o.), Ky.—Phil J. Weisenberger & Son's plant was damaged by high winds on Nov. 11. The loss was small.

Paintsville, Ky.—The Great Northern Hay, Coal & Feed Co. has been incorporated; incorporators, Lloyd Cole, Paintsville; Ira R. Clifford and Clarence R. Schell, Cincinnati.

MARYLAND

Chewsville, Md.—The Chewsville Co-op. Co. recently bot a 50 h. p. direct connected Ajax Hammer mill complete with motor and auxiliary equipment from the Sidney Grain Machry. Co.

Baltimore, Md.—Samuel Phillips, Edward Netre, C. Eugene Mounts, Frank J. Otterbein and C. Francis Roth have been nominated for election to the board of directors of the Baltimore Chamber of Commerce. The election for directors has been set for Jan. 27.

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MICHIGAN

Batavia, Mich.—An 80-ft. warehouse has been added to the east side of the Batavia Elvtr. Co. plant.

Warren, Mich.—The Warren Co-ops have built a new concrete block hay warehouse.

Vassar, Mich.—The Miller Grain Co. has installed a new cleaner and additional motors.

Port Hope, Mich.—The Bad Axe Grain Co. has added a new warehouse and coal sheds to its elevator.

Wayland, Mich.—F. D. Hilbert & Son have installed a new cleaner and separator for handling seed.

Fowlerville, Mich.—F. W. Burkhardt & Son recently installed a new bean cleaner driven by a 5-h.p. motor.

Utica, Mich.—The Utica Farm Buro recently has installed a corn cracker and grader driven by a 5 h.p. motor.

Richmond, Mich.—A seed cleaner driven by a 5-h.p. fully enclosed motor has been installed in the Farmers Elevator.

Pittsford, Mich.—A crusher-feeder driven by a 2-h.p. fully enclosed motor has been installed in the Pittsford Milling Co. plant.

Shepherd, Mich.—A corn cracker and grader driven by a 3 h.p. motor has been installed in the plant of the Shepherd Bean & Grain Co.

Vriesland, Mich.—The plant of the Farmers Co-op. Elvtr. Co. recently has been improved by the addition of a warehouse, a seed treater and a Superior Metal Cleaner.

Lansing, Mich.—The Lansing Terminal Elevator Co., which is operating in the Isbell Brown Elevator, recently installed a bean cleaner operated by a 5-h.p. motor.

Pinconning, Mich.—Thomas Hartwick & Son have added to their bean handling equipment by the installation of a picker and a polisher driven by a 3-h.p. motor.

Schooerlcraft, Mich.—The feed grinding capacity at the Knappen Co. elevator has been increased by the installation of a larger sized hammer mill driven by a 40-h.p. motor.

Port Hope, Mich.—The plant of the Port Hope Mill & Elvtr. Co. has been improved recently by the installation of a permanent magnet type tramp iron separator ahead of the feed mill and two cleaners.

River Rouge, Mich.—The new soybean plant of the Ford Motor Co. has started operations. This plant supplements two smaller mills in Michigan, the three having a combined output of 128 tons of soybean meal a day.

Lansing, Mich.—Neil H. Bass has been appointed manager of the Michigan Elevator Exchange, succeeding Lawrence Osmer, co-manager, who resigned. Mr. Bass had been co-manager with Mr. Osmer since 1934.

Stockbridge, Mich.—A new feed grinding installation is being installed in the plant of Little, Moore & Crandall, consisting of a 30-h.p. hammer mill with built-in crusher and tramp iron separator, driven by a 40-h.p. motor.

Rochester, Mich.—The Rochester Elvtr. Co. under the management of Keith Crissman, has recently been improved by a coat of paint, the addition of a canopy and the installation of an electromagnetic separator ahead of the feed mill.

Richland, Mich.—Feed handling equipment has been installed in the Knappen Co. elevator consisting of a hammer mill with built-in crusher and tramp iron separator driven by a 30-h.p. motor, and a Sydney Feed Mixer driven by a 5-h.p. motor.

Saginaw, Mich.—The Michigan Bean Shippers Ass'n appointed a com'ite Nov. 30 which will work with defense officials to assure a steady supply of the traditional army food, beans. Its members are Herman Henne, Bay Port; Albert L. Riedel and Michael J. Hart, Saginaw; Neil Bass, Lansing, and Russell Kerr, Kinde.

New Haven, Mich.—The New Haven Farmers Elevator was damaged by high winds during the Armistice Day storm. Other companies reporting small losses incurred at their plants from the storm that day are North Star Elvtr. Co., North Star; Michigan Bean Co., Owendale; Wallace & Morley Co., Bradleyville; Thos. Read Sons, Pickney.

The GRAIN DEALERS JOURNAL

Newport, Mich.—The former Harrington Mills have been purchased by W. Wisniewski and will operate under the name of the Newport Flour & Feed Mills.

Carleton, Mich.—The debris is being cleared from the Kahlbaum Bros. elevator site, the scene of a disastrous fire on Nov. 28, and a small building has been moved to the location, to be used as a temporary office. Feed grinders and mixers will be installed in sheds on the property where customers will be served. Grain buying continues.

MINNESOTA

Blackduck, Minn.—Floyd Sipes plans to open a feed mill and feed mixing plant here in the near future.

Minneapolis, Minn.—George E. Sanborn, 86, former grain dealer here who retired in 1925, died Dec. 19.

Rogers, Minn.—The Rogers Grain & Feed Co. reported its elevator was slightly damaged by high winds Nov. 11.

Jasper, Minn.—The Farmers Co-op. Elvtr. Co. sustained a small loss at its plant, the result of high winds Nov. 11.

Garvin, Minn.—The Garvin Co-operative Elvtr. Co. will install new equipment for cleaning seed. Joe Rolstad, manager.

Ashby, Minn.—Gulbrand Tollefson Hoff, pioneer elevator operator here, died at his home at the age of 88 years.

Viking, Minn.—Edwin Christianson of Gully has succeeded Otto Reickson as manager of the Viking Seed & Grain Co. elevator.

Appleton, Minn.—The Appleton Farmers Co-op. Elvtr. Co. elevator was damaged by high winds in November. The loss was small.

Doran, Minn.—J. J. Brady, a pioneer in the elevator business of Wilkin County, has sold his elevator interest to the Doran Farmers Elevator.

Brewster, Minn.—Rudolph Meier, assistant manager of the Brewster Farmers Elvtr. Co., was advanced to manager, succeeding the late A. C. Severson.

Cosmos, Minn.—The Cosmos Elvtr. Co. has been incorporated; incorporators, Lillie Bunyan and Charles A. Bunyan, Hutchinson; Harry E. Keene, Cosmos.

Duluth, Minn.—Duluth Board of Trade members standing in the name of D. A. Stevens, Minneapolis, is posted for transfer to G. H. Spencer, Duluth.—F.G.C.

Currie, Minn.—The Farmers Elvtr. Co. was damaged by fire recently, and complete new legs have been installed and other extensive repairs were made by the T. E. Ibberson Co.

Lake Crystal, Minn.—The W. E. Thomas Lumber Co. has been incorporated; listed among its various activities is the buying and selling of grain elevators and the storing and handling of all kinds of grain.

McIntosh, Minn.—Otto Erickson of Viking has succeeded Marvin Larson as manager of the Farmers Co-operative elevator. Mr. Erickson has been with the Viking Seed & Grain Co. for the past three years.

Brewster, Minn.—Albert C. Severson, 64, manager of the Farmers Elevator here, died at a Rochester hospital from a blood clot, following an operation. He was the first and only manager of the Brewster elevator.

Bruno, Minn.—The Bruno Farmers Feed Ass'n has been purchased by John Wahlstrom who has been the manager most of the time the organization has been in operation. The transaction includes the entire stock and all accounts.

Minneapolis, Minn.—Fire of unexplained origin destroyed the interior of the old stone building that once housed the Palisade mill, Dec. 7. The building was owned by the Pillsbury Flour Mills Co., but had not been in use in recent years.

Blue Earth, Minn.—M. J. Estrem, manager of the local branch of the International Milling Co. is moving to Minneapolis to take over Frank Cushing's position as sales supervisor. His place here is being taken by R. J. Bendixen of Minneapolis.

Blooming Prairie, Minn.—The Farmers Co-op. Elvtr. Ass'n, recently equipped its elevator with a new Fairbanks 20-ton Dump Scale, a Howell Aero-Flex Telescoping Pneumatic Truck lift and a set of Howell Improved Sectional Steel Dump Grates. H. Norin Stall had the installation contract.

Beaver Creek, Minn.—The Beaver Creek Co-operative Elvtr. Company has been incorporated. Capital stock \$40,000; to engage in an agricultural, marketing, warehousing and mercantile business upon the co-operative plan. Incorporators: Rudolph Juhl, Carl Taubert, J. S. Crawford, et al.

Bellingham, Minn.—The Farmers Co-op. Elvtr. Co. is improving its plant with the installation of a new Howell Steel Boot Tank, Direct Connected Geared Head Drive with Fairbanks Morse Motor, roller bearing boot, distributing system and spouting, a set of Howell Sectional Steel Dump Grates, and Calumet Cups.

Lutherne, Minn.—The E. A. Brown Co. elevator is being completely remodeled and reequipped. New machinery includes a 7½-h.p. Howell Direct Connected Geared Head Drive with Fairbanks Morse Motor; Roller Bearing Boot and Head Pulley; Calumet Cups, and a Howell Distributor and Spouting System. H. Norin Stall has the contract.

Sanborn, Minn.—A 30,000-bu. annex will be built for the Farmers Co-operative Elvtr. Co. It will have 8 bins, a slab foundation, motor power and transmission machinery to and from the company's present elevator to serve the annex. The T. E. Ibberson Co. will do this work.

Minneapolis, Minn.—Representatives of the grain business here at a dinner meeting the evening of Dec. 18 addressed an interested audience of McCook County (S. D.) farmers and members of the Hutchinson County (S. D.) Crop Improvement Ass'n who visited here Dec. 17-19. The visitors, guests of the Northwest Crop Improvement Ass'n, were taken thru many places of interest, highlights of the tour being the federal grain inspection floor; barley cleaning plant; Rahr malt plant; trading floor, and flour mill.

Duluth, Minn.—The annual meeting of the Farmers Union Grain Terminal Ass'n was held in St. Paul, Minn. Press reports from there announced that the directors of the ass'n authorized the construction of a 3,000,000-bu. elevator either at Duluth or Superior. The city of Superior owns a site on the harbor front which it is reported to have offered the ass'n on a \$1 a year basis with option of purchase later if desired. Another feature Superior offers is lower charges on out loading grain. The state of Minnesota owns some water front property in Duluth purchased some years ago for the purpose of erecting thereon a state-owned elevator, but subsequently dropped and the county also has dock sites acquired thru non-payment of taxes which has been presented to the ass'n.—F.G.C.

MISSOURI

Miller, Mo.—The Hood Milling Co. has installed a Kelly Duplex Cutter Head.

Desloge, Mo.—The DeForrest Milling Co. has been purchased by Chris Pirtle and Glen Pipkin.

Carthage, Mo.—The Morrow Milling Co. report an electrical damage loss occurring on Nov. 22.

Pattensburg, Mo.—The H. H. Green Mill & Elvtr. recently purchased a large size Western Pitless Sheller and Gyrating Cleaner.

St. Louis, Mo.—The St. Louis Grain Club held its annual meeting and election of officers for 1941 at the Statler Hotel on Dec. 19.

Mt. Vernon, Mo.—Shannon Roberts, formerly manager of a Kelso elevator near McCune, Kan., is new manager of the local Kelso Elevator.

Mexico, Mo.—William W. Pollock, of the W. W. Pollock Milling & Elvtr. Co., has returned home from the hospital and will be able to attend to business details soon.

Butler, Mo.—We are just completing an 18,000-bu. elevator equipped with Calumet Buckets, 2,500-bu. per hour, manlift, corn sheller, cleaner, hammer mill and electric dump. The elevator is cribbed type, made out of 36,000 ft. of native 2x4s.—M. F. Arnold.

Adrian, Mo.—The Harriman Elevator recently installed a 50 ft. spiral conveyor from the head spout to a 12,000-bu. storage for oats in a structure 50 ft. from the main elevator. This conveyor is operated by a separate 2-h.p. motor and moves 1,500 bus. per hour.

Bloomfield, Mo.—The Bennett Wholesale Co. is completing construction of a 24,000-bu. grain elevator. The wooden structure has eight bins, each about 10 ft. square. The recently formed corporation thus far this season bot in excess of 20,000 bus. of ear corn from local farmers.

Mexico, Mo.—The W. W. Pollock Milling & Elvtr. Co. was reopened for business recently with J. E. Curry as mill manager. The mill had been closed since Nov. 23, when it was placed in receivership. The receivership was set aside by Judge Frank Hollingsworth in Circuit Court.—P. J. P.

Baxter Springs, Mo.—Paul Stauffer of Miami and John Stauffer of Joplin, brothers, have acquired complete control of the Stauffer-Cammack Grain Co. properties here and at Columbus and selling the Miami establishment. The transaction marks the retirement of L. T. Cammack, who has been active in the firm since it was established in 1897 by himself and the late S. K. Stauffer. D. W. Robeson also was interested in the company, which was purchased by the Stauffers. The firm, one of the oldest grain companies in the district, will continue under the same name.

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Miami, Mo.—The local establishment of Stauffer-Cammack Grain Co. has been purchased by Henry Giessing. Mr. Giessing has been with the Commerce Mining & Royalty Co. the last 10 years, but prior to that was a grain dealer in northern Missouri.

Jefferson City, Mo.—At a meeting of representatives of the industries interested in legislation regulating and making the gypsy trucker responsible held here Dec. 18, a bill was drawn which will be presented to the next session of our legislature. A copy of this bill will gladly be sent any member upon request.—A. H. Meinershagen, sec'y Missouri Grain, Feed & Millers Ass'n.

Advance, Mo.—Dave Barnett, 25, was sentenced to three years in the state penitentiary by Circuit Judge James V. Billings on Dec. 12 when he pleaded guilty to charges of having started a fire that destroyed the Advance Milling Co. plant last April. His 65-year-old father, Ed Barnett, who pleaded guilty when taken before Judge Billings two weeks before, was sentenced to serve two years in prison. The man and his son gave no reason why they started the fire.—P. J. P.

Higginsville, Mo.—George A. Klingenberg, a director of our ass'n for ten years, has always been a supporter of our ass'n and the grain trade in general. He has been induced to ask for the appointment to the office of State Grain and Warehouse Commissioner. Mr. Klingenberg has been in the grain business for more than 35 years and is capable of filling this office. We feel that a grain man is entitled to this appointment.—A. H. Meinershagen, sec'y, Missouri Grain, Feed & Millers Ass'n.

KANSAS CITY LETTER

The Mayway Mills report a sprinkler leakage loss occurring on Nov. 30.

Kansas City, Kan.—C. H. Cotton, manager of the mill feed department of Kansas Flour Mills Corp., has returned to his work after an absence because of illness.

In an after hour ping-pong tournament finale on the Board of Trade floor Dec. 9, Tanner G. Stephenson and H. J. Sosland out-pinged James L. Young and J. S. Geisel, Jr. The winners took three games, lost one.

Robert O'Brien, new manager of the Kansas City division of the Salina Terminal Elvtr. Co., has been elected to membership in the Board of Trade. Mr. O'Brien succeeded Robert McGeary, who returned to Salina headquarters.

Karl Kullmann and Dr. George Wilhelm, operating the Mid-Continental Laboratories, have acquired a building on East Fifteenth St., the expansion of their business making necessary removal to larger quarters. The company manufactures live stock concentrates, developed from farm products, used by feed manufacturers.

The plan to reorganize under the Chandler bankruptcy law the Flour Mills of America, Inc., was submitted to Judge Reeves of the Federal Court Dec. 16. The judge has described the amount asked for fees as "outrageous." The company, whose contemplated capitalization under the plan it offered the court is for \$3,200,000, has been attempting to reorganize since March, 1939.

MONTANA

Shelby, Mont.—D. L. O'Conner of New Rockford, N. D., at the annual meeting of the Farmers Union Grain Terminal Ass'n, held recently in St. Paul, Minn., reported that the ass'n has acquired a site for a 1,000,000-bu. elevator to be built here, construction to start soon. Forty-five new elevators have been added to the ass'n during the year, O'Conner said.

Lewistown, Mont.—The Farmers Elvtr. Co. is installing a new feed plant in connection with its elevator. Improvements include a Strong-Scott Triple Action Mixer driven by a 5-h. p. Fairbanks-Morse totally enclosed Fan Cooled Motor; a hammer mill with magnetic separator and Draver Feeder with 20-h. p. Fairbanks-Morse Motor; a steam rolling mill equipped with S.K.F. Bearings; a new scalper; two new elevator legs, both being driven by the same Strong-Scott Head Drive. The feed plant will be located, principally, in the basement of the elevator, with overhead bins located above the work floor of the elevator and workhouse. The basement is also a new improvement with dimen-

sions, 24 x 28, 8 ft. head room with concrete floor and walls thruout. The plant was designed by the Victor Construction Co. who is also making the improvements.

NEBRASKA

Adams, Neb.—Fire believed to have started from a defective flue, damaged the Farmers Elevator the evening of Dec. 13. Donald Foster is manager of the elevator.

Norfolk, Neb.—Harry T. Lee has succeeded Roy Ellison as territory manager for the Ralston Purina Co. in this locality. Mr. Lee formerly was at Grand Junction, Colo.

Stella, Neb.—H. E. Hanson, operating as the Stella Elvtr. Co., has sold his elevator to the Hart-Bartlett-Sturtevant Grain Co., Kansas City, the new owner to take charge of the business Jan. 1.

Schuyler, Neb.—Herman Linnenberg, employee of the Golden West Grain Co., sustained a severe cut on his right foot Dec. 11 when a crowbar he was using to pry open a grain door slipped. Striking his foot, the sharp end of the bar cut thru his overshoe and shoe.

Gretna, Neb.—The Weeth Bros. recently have made extensive improvements at their Gretna Roller Mills and the Melia elevator. A new high-speed elevator with a 3,000 bus. of grain per hour capacity was installed at the Mills and other machinery speeded up. At Melia (Gretna p. o.), the elevator has been painted.

OMAHA LETTER

Arvid Anderson, 63, retired superintendent of the Crowell Elvtr. Co. and vice-president of the Society of Grain Elvtr. Superintendents of America, died Dec. 12.

The Omaha Grain Exchange closed for five minutes at noon Dec. 20 in respect to the late Ivan C. Harden, veteran Chicago and Omaha grain dealer, who died in Chicago Dec. 16.

Proposed changes in grain standards for rye and oats were discussed in Omaha Nov. 13 at a conference of representatives of grain commission men and farmers, with R. T. Miles, head of the Chicago office of the grain and seed division, agricultural marketing service, and R. H. Black, Washington, D. C., in charge of grain standards research. Purpose of the change proposals is to bring rye standards in harmony with changed marketing methods and to establish standards for new varieties of oats. Reports will be made to the sec'y of agriculture for a decision.

Senator-elect Hugh A. Butler has sold his interest in the Butler-Welsh Grain Co. to his partner, J. L. Welsh, making good a promise he made during the election campaign in which he defeated Gov. R. J. Cochran. He has disposed of his large grain business in order to devote more time to furthering the interests of his constituents in Washington. No consideration was mentioned. In 1931-'32 Mr. Butler was president of the Grain and Feed Dealers National Ass'n. The Butler-Welsh partnership conducted one of the largest grain commission companies on the Omaha Grain Exchange, owned one large elevator at Nebraska City and leased two in Council Bluffs and one in Omaha. Total storage capacity of the four elevators is two million bushels. All are filled with grain on which the government has made loans to farmers. The partnership was one of the oldest in the state and perhaps the oldest in the grain business in this section, having continued for 22 years. Mr. Butler will continue to operate his irrigated farm and cattle feeding business in southwestern Nebraska.

NEW ENGLAND

New Haven, Conn.—The Empire State Flour Co. has been organized, capital stock \$10,000.

NEW JERSEY

Hightstown, N. J.—P. J. Martin Corp., grain, has been organized; 500 shares, n.p.v.

STRATTON GRAIN CO.

MILWAUKEE, WIS.
CHICAGO, ILL. **SPRINGFIELD, O.** **ST. JOSEPH, MO.** **NEW YORK, N. Y.**
MILL FEEDS — FEED PRODUCTS — BY-PRODUCTS
Consignments and Future Orders Solicited

The GRAIN DEALERS JOURNAL

Walcott, N. D.—The Fredrickson Elvtr. Co. has been incorporated. Capital stock, \$20,000; incorporators, P. A. Fredrickson, M. C. Fredrickson, P. R. Fredrickson and H. T. Fredrickson.

Fargo, N. D.—New members enrolled in the Farmers Grain Dealers Ass'n of North Dakota during November were Martin Hublou, Anamoose, and Souris Co-op. Elvtr. Co., Souris, N. D.

OHIO

Custar, O.—The Deshler Farmers Elvtr. Co. recently purchased a Western Sheller.

Enon, O.—Beard's Elevator has installed a Kelly Duplex Corn Cutter and Grader.

Melrose, O.—Theo. Burt & Sons' elevator was slightly damaged by high winds on Armistice Day.

Ada, O.—J. I. Baransy, operator of the Baransy & Wolfson elevator, died Nov. 2, aged 71 years.

Lancaster, O.—Perl D. Turner Co. reported its elevator damaged slightly by high winds Nov. 11.

McComb, O.—A. R. Pennington is a new employee of the McComb Farmers Elvtr. Co. elevator.

Washington, C. H., O.—J. W. Eshelman & Sons recently installed two new Sidney Electric Truck Hoists.

Toledo, O.—The Toledo Board of Trade will hold its annual election of officers and directors Monday, Jan. 6.

Raymond, O.—The Raymond Elevator sustained a small amount of damage from high winds on Nov. 11.

Waynesfield, O.—The Waynesfield Grain Co. recently bot a Steinlite Moisture Tester thru the Sidney Grain Machry. Co.

Madison Mills, O.—Ottie E. Hockman reported a small property damage sustained as a result of high winds on Nov. 11.

Elmira, O.—The Elmira Elvtr. Co., Calvin Amstutz, owner, reported its elevator damaged by high winds of Nov. 11.

Cincinnati, O.—A fire that damaged a grain bin at the Early & Daniel Co. warehouse the night of Dec. 9 is believed to have been caused by spontaneous combustion.

Luckey, O.—We have purchased from Seed Trade Reporting Euro three Steinlite Moisture Testers for our elevators here, at Woodville and LeMoynne.—The Luckey Farmers Exchange Ass'n, W. F. Schnitker, mgr.

Osgood, O.—We recently purchased a new 1½-ton Burton Feed Mixer for immediate installation, replacing a 1-ton that we formerly used. We also purchased a No. 116 Clipper Cleaner, to be installed in the near future. Recently we put in a Sidney Drag Chain Hammer Mill Feeder.—Alexander Bros., per Louis Alexander.

Toledo, O.—Supervisor H. F. Prue has arranged several conferences of the licensed grain inspectors who are located in the Toledo district, at which grain grading problems were discussed. Among the subjects of the discussions, some of which were led by the inspectors, were "The Inspection of Intermarket Grain," "Use of the Tag-Happenstall Moisture Meter," "Mixtures of Hard Red Winter and Soft Red Winter Wheats," "Unevenly Loaded Cars of Grain," and "The Use I Made of the Grain Inspectors' Manual." The licensed grain inspectors who attended the Toledo conference co-operated with Mr. Prue in conducting a grain grading school for producers and country shippers.

OKLAHOMA

Edmond, Okla.—W. J. Grover has severed his connection with the Eagle Milling Co., effective Dec. 1, and is taking a vacation.

Wagoner, Okla.—A fire which started in the engine room of the feed mill room at Rosson Bros. mill Dec. 9, quickly spread thru the mill and feed room. The damage is estimated at around \$1,500.

Chelsea, Okla.—The Rev. C. C. Martin has opened the Chelsea Mill which has been closed for several months, and will handle grain, feed and flour. The mill was previously operated by the Phillips brothers of Foyle, and is equipped for all kinds of grinding and for flour manufacture which Mr. Martin will engage in.

Kingfisher, Okla.—The Farmers Exchange is contemplating building a larger elevator before the next harvest season.

Higgins (Recyl R.D.), Okla.—D. M. Woodward has succeeded Ross Zanor as manager of the Higgins Wheat Growers Co-op. Elevator. Mr. Zanor recently resigned to accept a similar position at Perryton.

Hinton, Okla.—Construction is progressing on the new 100,000-bu. concrete grain elevator for the Farmers Elvtr. Co. This house will be 110 ft. high and will have four circular bins, each about 12 ft. in diameter.

Shattuck, Okla.—The James Grain Co. is erecting a 32x50 ft. warehouse on its property from materials salvaged from its large warehouse which was recently taken down. The old warehouse was situated on ground over which the proposed route of the new highway led northward out of the city which necessitated its being razed.

Quapaw, Okla.—Howard Barnard, new owner of the Quapaw mill, has completed the extensive repairing and remodeling of the plant which he started two months ago, and is open for business, buying corn and all other grain, and grinding feed. More machinery is to be installed, and Mr. Barnard plans to do all his feed grinding and processing here for this district trade. Oliver Gilmore of Baxter Springs is in charge of the mill. Mr. Barnard also is owner of the Baxter Sales Co., which has a district-wide wholesale trade in feed, grain and flour.

Mooreland, Okla.—The Farmers Co-op. Trading Co. will install the following equipment in its 80,000-bu. reinforced concrete grain elevator now under construction by Chalmers & Borton: Ehksam Overhead Electric Truck Lift with 5-h.p. motor; 500 lb. Ehksam Electric Manlift; 4,000-bu. leg with 12x6 Calumet Cups, Ehksam Head Drive and 25-h.p. Fairbanks Morse Motor; and dust collecting system. A dust house will be located over the driveway extension. The driveway will be thru the center of the house. The elevator is expected to be completed by early spring. Charles E. Ludden is manager.

PACIFIC NORTHWEST

Pasco, Wash.—E. S. Johnston, elected mayor at the recent election, is a well known feed man and operates a local mill.

Tacoma, Wash.—D. E. Howell has been appointed receiver for the Kenworthy Grain & Milling Co., succeeding F. C. Brewer, who died Dec. 8.

Spokane, Wash.—Grange Service, Inc., is combining its facilities by moving the feed department and other branches of service into its new 30,000-bu. elevator and warehouse.

Portland, Ore.—The board of governors of the Oregon Feed Dealers Ass'n held a meeting Dec. 18 at the Multnomah Hotel when problems of the ass'n that have come up during the last couple of months were discussed.

Ilia (Almota p. o.), Wash.—The old C. A. Cook warehouse has been taken down. The structure, 125 ft. long and 100 ft. wide, once housed the grain surplus of the Mayview district awaiting shipment on boats down the river.

Seattle, Wash.—Bill Gee has been elected as general chairman for the 1941 convention of the Pacific Northwest Feed Ass'n, to be held here Feb. 21 and 22 at the New Washington Hotel. He has served for a number of years on the convention comitee.

Portland, Ore.—Peter Johnson, 92, pioneer grain and feed dealer, died Dec. 12 at the Masonic Home in Forest Grove. Mr. Johnson organized P. Johnson & Co., which later became Johnson & Palitzsch. The firm engaged in a general grain and feed business. Mr. Johnson retired from business about 15 years ago. Walter L. A. Johnson, also in the grain business, is one of two sons who survive him.

Cornelius, Ore.—Washington County dealers of the Oregon Feed Dealers Ass'n held their annual pre-Christmas meeting at the Forest Hills Golf Club south of here. In a short business session the Wages and Hour Bill was discussed. A Christmas party was held during the evening.

Sweetwater, Ida.—Construction of the Lewis-ton Grain Growers, Inc., elevator has been delayed by inclement weather making it difficult to get building material delivered. It is hoped to have the elevator completed by Jan. 1. Electric lines have been run to the elevator site. The old plant was served by a diesel-powered dynamo.

Vale, Ore.—A movement is on foot to establish an alfalfa processing mill near here. The Malheur Co-op. Hay Growers Ass'n is negotiating with George W. Sumpter on the proposition. Mr. Sumpter formerly operated a mill at Brownsburg, Ore. Efforts are being made to raise sufficient funds to permit starting of operations. Present plans call for a mill with 60 tons a day capacity.

Walla Walla, Wash.—Managers and directors of locals which make up the North Pacific Grain Growers met here recently for a business session and banquet. A 90 per cent wheat parity loan was recommended in formal resolution. Mr. Sumpter formerly operated a mill at Brownsburg, Ore. Efforts are being made to raise sufficient funds to permit starting of operations. Present plans call for a mill with 60 tons a day capacity.

Salem, Ore.—A general meeting of grain warehousemen, seed and feed dealers of the state was held here the evening of Dec. 13, in the Chamber of Commerce, when a discussion of the Wages and Hours Law took place. A representative from the Portland office of the Wages and Hours Division was present and gave an outline of the law as well as answered questions pertaining to the many details of the law. Considerable confusion over interpretation of the law has existed and it was in an effort to straighten out these problems that the meeting was held.

Spokane, Wash.—A movement to do away with wheat-in-transit exemptions in the state tax code has been started in the Grange. Repeal of the section that permits corporations to withdraw from the assessment roll that part of their stock which is sold outside the state between Jan. 1 and April 30 was demanded in a resolution passed recently by Four Lakes Grange No. 908. Bert A. Spear, chairman of the resolutions comitee, said the resolution refers to the so-called wheat in transit law which it believes is merely a subterfuge to avoid paying a just tax. He pointed out the tax rolls show that one Spokane mill was assessed approximately \$111,000 on Jan. 1, 1940, and finally cut it down to approximately \$7,000. He said, "We understand that this wheat was supposed to be shipped out of the state."

Salem, Ore.—A general meeting of the Oregon Feed Dealers Ass'n was held the evening of Dec. 12 at Salem Chamber of Commerce when the Wages and Hours Law was discussed with government authorities. Seventy-five feed dealers, warehousemen and seedmen gathered for the purpose. Charles F. Elery, senior inspector of the Wages and Hours Division at Portland outlined the purposes of the law, discussed various provisions of it and enforcement now under way in the grain, feed and seed industry of the Willamette Valley. Mr. Elery drew a distinction between retailers and retail manufacturers of feed. The law exempts only retailers who do no processing in their plant; retailers are held to be those who have packaged goods on their shelf and do no mixing or processing of any kind. Technical points were outlined by Mr. Elery. He pointed out, however, that the law was subject to various interpretations, and in the final analysis, interpretations were subject to rulings of the court.

PENNSYLVANIA

Susquehanna, Pa.—Ira H. Spencer, 68, Spencer Feed Mill, died recently.

Darlington, Pa.—Leonard M. Chapin, 50, part owner of a feed mill here, died Dec. 4 after a brief illness.

Homer City, Pa.—The Homer City Feed Co., whose mill was destroyed by fire recently, has been taken over by W. K. George, son of the owner, who purchased the H. D. Wetzel mill and is conducting its business there.

Official Brown-Duvol
MOISTURE TESTERS
TagHappenstall Moisture Meters
 and a complete line of grain and seed testing equipment. Every item guaranteed up to government specifications.
HARRY B. OLSON
 211 W. Wacker Drive
 CHICAGO, ILL.

Philadelphia, Pa.—The annual Christmas party for the poor children of Philadelphia, sponsored by the Commercial Exchange and other organizations having their headquarters in the Philadelphia Bourse, was held in the Bourse the afternoon of Dec. 23.

Shamrock Station, Pa.—The Shamrock Feed & Grain Mill operated by Fred Stiles of Pottstown was destroyed by fire the evening of Dec. 2. A quantity of grain and feed was destroyed along with the plant and its equipment. The mill was owned by Jacob J. Schofer of Topton.

SOUTH DAKOTA

Buffalo, S. D.—Dell Langerman, feed dealer, plans to erect a feed storage building.

Mitchell, S. D.—Ted Lepke has been named manager of the Mitchell Fuel & Feed Co.

Garretson, S. D.—G. L. Benson of Allendorf, Ia., is the new manager of the Farmers Elevator here, succeeding O. T. Lande, resigned.

Hetland, S. D.—George P. Sexauer & Son are having their elevators, warehouses, etc., painted with aluminum paint. The T. E. Ibberson Co. is doing the work.

Brookings, S. D.—Geo. P. Sexauer & Son are installing a Strong-Scott Molasses Mixer in their feed plant here, and will add molasses feeds to their line of "Peerless" poultry, hog, and cattle rations.

Colman, S. D.—The Farmers Co-operative Elvtr. Ass'n, whose elevator was destroyed by fire Nov. 17, has purchased the Peavey Elevator. Some remodeling is to be done at the elevator which the new owner now is operating.

Viborg, S. D.—The Viborg Co-operative Elvtr. Ass'n held a grand opening on Nov. 30, when the public was invited to call and inspect the new addition and modern feed mill equipment recently added. Otto Schlotfeldt, manager, and his assistant, Carl Lauridsen, are operating the mill, which is equipped to do all kinds of grinding.

SOUTHEAST

Charlotte, N. C.—N. W. Gray, 64, former employee of the Interstate Milling Co., died Dec. 2 after a long illness.

Charlotte, N. C.—The Charlotte Feed & Seed Co., owned and operated by E. B. Solomon, has moved to new quarters in East Trade St.

Winston-Salem, N. C.—The old Spainhour Mill, the oldest flour mill in Forsyth County, has been remodeled and started work on Dec. 1. A new hammer mill was installed. The mill recently was purchased by R. C. Sink of Lewisville, N. C.

Vinton, Va.—The Vinton Milling Co. mill was destroyed by fire the night of Dec. 7, entailing a loss estimated at \$70,000, only partially covered by insurance. A quantity of flour, feed and grain burned, and about 10,000 bus. of wheat in elevator bins west of the mill which was a complete loss, W. J. Covington, manager and treasurer of the company, stated. The blaze originated in the basement, where electric motors were located. When discovered it had gained such headway that it was impossible to save more than a portion of the company's records in the mill office.

TEXAS

Palacios, Tex.—The E. E. Burton Co., feed and seed business, has moved to larger quarters on Main St.

Fort Worth, Tex.—J. T. Majors, assistant manager of the Burrus Mill & Elvtr. Co., recently was seriously injured in an automobile accident. He sustained a smashed knee-cap and chest injuries in a head-on collision.

WISCONSIN

Ellsworth, Wis.—Fire recently damaged the Cope Bros. Feed Co. elevator.

Madison, Wis.—The Master Feed & Seed Co. will build a \$10,000 warehouse here.

Madison, Wis.—The Johnson-Olson Grain Co. of Minneapolis, Minn., has been granted a Wisconsin charter.

LaCrosse, Wis.—Old Santa called a few days ago on many members of the LaCrosse Grain Growers, Inc., and he left in his wake some \$8,000 in cash, paid in redemption of the 1934 Patronage Certificates and dividend certificates for the 1939-40 amounting to over \$15,000.

Manitowoc, Wis.—Stanley D. Eckels, 60, head of the Northern Wisconsin Produce Co., and connected with the Northern Grain Co. until 1908 when he organized his Produce Co., died Dec. 16. Before coming here in 1901, for three years he was connected with the Cargill Grain Co. in Green Bay.

Superior, Wis.—Lee M. Abbey, 55, of White Bear Lake, employed by the Farmers Union Grain Terminal Ass'n as superintendent of construction, was found dead Dec. 17 in his room in the Andrey Hotel. He was here working on plans for the company's proposed terminal elevator. Mr. Abbey was well known in grain circles throughout Minnesota and Wisconsin.

Algona, Wis.—The Stoller Feed Store has completed construction of an addition affording three additional floors, including the basement, 30 x 40 ft. in size. Two large hammer mills are being installed and two mixing units. In the basement Mr. Stoller plans installation of seed cleaning equipment and equipment for treating grain to prevent smut. Storage capacity is for 7,000 bus. of grain, and truck and car loading spouts have been installed. Installation of an elevator in the building is contemplated. A 52-ft. canopy has been constructed along the east side of the building for the comfort of patrons loading and unloading grains and feeds.

WYOMING

Lovell, Wyo.—The Big Horn Co-op. Marketing Ass'n of Basin, Wyo., recently purchased a new No. 18 rolling mill equipped with S.K.F. Ball Bearings, thru the Victor Construction Co. for installation at its plant here.

Hearing on Changes in Grades of Rye and Oats

[Continued from page 543]

for white oats, but have to sell them for 38 $\frac{1}{4}$ cents, against 41 cents for white oats. I do not like this discount. The change in the rule would eliminate this.

R. T. MILES, in charge of inspection efficiency: The mixing is done at the elevators. They do not grow on the farm as mixed oats.

FRED T. BASCOM: Needle rye is a drug, a threat, a drug on the market.

Liquid Carbon Dioxide as a Fire Extinguisher

At ordinary room temperatures gaseous carbon dioxide will remain liquid only under high pressure. By reducing the surrounding temperature to zero Fahrenheit the dioxide will remain liquid at low pressures that are easily maintained in large storage tanks.

Released under its own pressure as a stream of intensely cold vapor, carbon dioxide strikes at the very heart of a fire by paralyzing its heat, displacing in a single instant both of the elements upon which a flame must feed, oxygen and fuel vapors.

The liquid has been made available in large quantities for fire extinguishing by the Cardox Corporation.

USE CLELAND Cleaners

For Most Efficient Cleaning, Largest Capacity, Handles All Grain or Seed, Lowest Price Quality Construction—Built in 6 Sizes.

Write
CLELAND MFG. CO.
Minneapolis, Minnesota
Established 1824

Calendars Received

As 1940 draws to a close, and a new year is about to be born, calendars from our many friends come rolling in from far and wide. This year's crop is a little more colorful, a little brighter, than the calendars of recent years as a rule, reflecting an improved spirit and a brighter hope for the future among the grain dealers, and the trade that serves them. Here is the beginning of the list:

EDWARD R. BACON GRAIN CO., a brilliant picture of a tow-haired, happy youngster, with a mother dog, and a box of seven lively puppies. The painting is by J. F. Kieran. The calendar is a three-on-one pad, which includes two famous quotations from history's famous American leaders on every sheet.

COLUMBIAN ROPE CO., another beautiful Charles R. Patterson sea picture, showing the packet ship **Daniel Webster** running under full sail before a freshening westerly wind. The history of the **Daniel Webster** appears under the 1941, three-on-one calendar pad, edged with a representation of a rope below the painting.

HART-CARTER CO., a handy combination calendar and letter holder of bronze metal that will ornament many a desk. The calendar is a three-on-one pad, covering the preceding and succeeding months, as well as the current month.

The Kansas State Grain Tax Bill

The executive board of the Kansas Grain, Feed & Seed Dealers Ass'n held a meeting at Dodge City Dec. 7 and studied the new proposed grain taxing bill.

Sec'y J. F. Moyer reports that the board went on record approving the principles of this type of legislation. "This bill provides for a half-mill tax on the total volume of grain handled by each dealer annually. Within a few days we expect to receive a new and revised draft of this bill. The board felt that this new tax plan should result in more even distribution of the grain tax load, should encourage larger holdings of grain stocks both on farms and in elevators or mills, should create a more regular flow of grain to the markets throughout the year and encourage the storing of Kansas grain in Kansas, and would still provide the state with its usual revenue from that source.

"We understand that a completely new tax code will be offered to the legislature this year which would make the assessment date January first instead of March first. Should the proposed grain taxing bill fail to be enacted and all assessments made as of January first, then citizens of Kansas would pay about 10% more grain taxes than they pay at the present time as federal statistics show that about 10% of the crop is disposed of during the months intervening from January first to March first.

"The board also opposed the proposed changes in the federal grading standards for rye and oats; and a telegram expressing their opposition was delivered to the proper officials at the hearing in Omaha, Nebraska, last week.

"They also voted not to concur with other interests in asking for legislation authorizing the Kansas State Grain Inspection & Weighing Department to establish milling and baking laboratories, believing that it would finally result in technical points being added to our grading standards for which country dealers would have no means of determining such factors at points of delivery, and believing further that a program designed to eliminate undesirable varieties of grain should start with the producer and not at terminal markets."

A bushel of corn fed on the farm to hogs is worth, roughly, 10 per cent of the market price per hundredweight for hogs. With hogs averaging \$6 per 100 lbs. in Chicago at this time, the farmer expects a return of about \$5.50 per hundred after he has paid freight and selling charges. Thus, on the average, corn fed to his hogs will return him about 55c a bu. The government will pay him 61c a bushel for his corn as it is, and he doesn't have the trouble of caring for his hogs. So, he sells his hogs and borrows on the corn.

Field Seeds

Brush, Colo.—A reinforced concrete elevator has been erected by the Brush Seed & Feed Co.

Mt. Olivet, Ky.—T. W. Linville has bought the seed, feed and grocery business of J. H. Mullikin.

Cottom, Ont.—The plant of the Essex Hybrid Seed Corn Co. burned Dec. 2, causing a loss of \$64,000.

Belle Plaine, Ia.—The Funk Hybrid Seed Corn Co. has installed a corn elevator in the property it leased several months ago.

Gary, Ind.—The Gary Seed Store has been incorporated with \$6,000 capital stock by Mitchel Mack, Ruby Mack and Jos. Mack.

Prescott, Wis.—Construction will begin immediately on the seed corn testing laboratory for the Wisconsin Experiment Station.

Urbana, Ill.—L. A. Moore of the Illinois State Department of Agriculture, has been elected president of the Seed Council of North America.

Creston, B. C.—The Associated Seed Growers of Brooks advise that during 1941 the acreage in seed peas will be double that of 1940.—F. K. H.

Charleston, S. C.—W. C. McIntosh, pres. of Chas. T. McIntosh Sons, Inc., died Nov. 10, aged 54 years. A brother, Herbert, and four sisters survive him.

Oak Harbor, Wash.—The Farmers Seed & Feed Co. is the new name of the Lindblom Co. The management continues the same, under Art Harris.

La Conner, Wash.—The Puget Sound Seed Co. has been incorporated with \$50,000 capital stock by Ernest M. Alexander, V. A. Robertson and Cecil Solly.

Omaha, Neb.—H. E. Herries has bought the retail branch of the Nebraska Seed Co., of which he has for many years been manager, and is operating it as the Herries Seed Co.

Des Moines, Ia.—Emmett C. Clark, manager of the branch plant here of Geo. P. Sexauer & Son of Brookings, S. D., died Dec. 1, aged 50 years, after an operation for gall stones.

De Kalb, Ill.—Four large corn shellers have been purchased by the DeKalb Agricultural Ass'n, mounted on trucks with pneumatic tires, and fitted with gasoline engines for driving, as portable shellers.

Salem, Ore.—The state flax industry has sold approximately 4,000 bus. of flax seed to Iran (Persia) which is sufficient to plant more than 2,800 acres. The seed brought \$12,000 and the deal was made through the minister to Iran. Peru also recently purchased 4,000 bus. of flax seed.—F. K. H.

Chicago, Ill.—Instead of the annual visit of Chicago Board of Trade members to the Funk Bros. seed growing industry at Bloomington, this year the company held a hybrid corn demonstration in the Board of Trade building Dec. 3, aided by a motion picture in color, the speakers being J. R. Laible and Dr. J. R. Holbert.

Jacksonville, Fla.—Frank S. Love, sec'y of the Southern Seedsmen's Ass'n, died Dec. 13 of a heart attack. He had been in good spirits and was to have delivered an address before the Georgia Seedsmen's Ass'n Dec. 10, but he was stricken Dec. 8. He organized the Southern Ass'n in 1918, and represented several seed firms.

Farwell, Tex.—Several new buildings have been erected for the Roberts Seed Co.

Marshalltown, Ia.—The city council is persisting in its efforts to collect transient merchants license fees from the Earl E. May Seed Co., of Shenandoah. The city ordinance provides for the collection of a fee not less than \$50 a month nor more than \$100 a month from transient merchants. The May Company, which opens a store here yearly, operates but a few months, usually about four, during the season when its wares are salable.

Chicago, Ill.—At a dinner given in his honor for accomplishments in hybridizing corn Dr. George Harrison Shull was awarded a medal given by the DeKalb Agricultural Ass'n. His experiments began 35 years ago, and Professor Shull heads the departments of botany and genetics at Princeton University. At the same time Wm. Mentjes of Minnesota received a trophy for his yield of 157.69 bus. of corn per acre, the highest of 10,000 competing.

Corvallis, Ore.—Tall fescue seed growers of Oregon, recently organized a state association. Oscar Loe, Silverton, is president and Robert Rieder, acting county agent from Marion County, secretary. Introduced several years ago by the Oregon experiment station under the name of tall fescue, this name has not yet been recognized by the United States department of agriculture for use in interstate commerce. First action of the meeting was to select a committee to work on a name and the distribution of seed to experiment stations thruout the United States.—F.K.H.

Oklahoma Seedsmen Meet

The annual meeting of the Oklahoma Seedsmen's Ass'n was held at the Skirvin Hotel, Oklahoma City, Nov. 13.

PRES. HENRY HORN delivered an address urging that the ass'n co-operate more closely with other seed organizations.

H. I. FEATHERLY of the Oklahoma A. & M. College said there are about 250 wild grasses in the state, of which ten are beneficial. He exhibited 40 specimens.

The Wage and Hour Law was explained by W. M. Ross of the U. S. Dept. of Labor, who answered questions.

W. M. MARTIN, Vernon, Tex., spoke on "Price Trends of Forage Seed Crops," pointing that this is not a good time to speculate, since large crops were being harvested this fall.

J. B. SIMS outlined the bill to regulate itinerant truckers, which is to be introduced in the Legislature in January.

FRANK KELLER, Shawnee, Okla., presented plans for the organization of the Oklahoma Seed Council.

The seedsmen of Oklahoma City entertained the visitors at a banquet at noon, where the special guests were Jos. Scott, pres. of the State Board of Agriculture, and Shawnee Brown, director of state A. A. A. work.

OFFICERS ELECTED for the ensuing

year are: Pres., T. Munger, Enid, Okla.; Vice Pres., H. Ross, Chickasha, Okla.; Sec'y-treas., M. C. McQueen, Tulsa, Okla.

Yields of Seed Oats Varieties

In distributing seed oats dealers in the Southwest will be interested in selecting varieties that will be profitable to their patrons, and the recent report of the agronomy department of the Kansas Agricultural Experiment Station affords a guide.

The Station report yields in 1940 in co-operative tests as follows:

Variety	Yield in Bushels Per Acre		Eastern Kansas		Central Kansas	
	1940 15 tests	1937-1940 23 tests	1940 7 tests	1939-1940 11 tests		
Fulton	62.1	53.3	38.0	33.7		
Kanota	57.3	50.4	32.9	29.1		
Columbia	55.2	47.7	... ...		
Brunker .....	... ...		33.1	30.6		
Red Texas ..	40.3	33.5	13.5	16.0		

Fulton oats has exceeded Kanota in yield in both eastern and central Kansas in 1940 and for longer periods. Both Kanota and Fulton have exceeded Columbia in eastern Kansas. The yields of Kanota and Brunker are similar in central Kansas. The yield of Red Texas is far below that of the other varieties.

New England Seedsmen Elect Lawton

The New England Seedsmen's Ass'n, meeting at the Parker House, in Boston, Mass., Nov. 21, elected C. W. Lawton, Providence, R. I., president, for the ensuing year. E. D. Pillsbury, Portland, Me., was elected vice president, and S. F. Willard, Wollaston, Mass., sec'y-treasurer.

Guest speakers on the program included R. J. MacKinnon, Detroit, Mich.; W. F. Horrell, El Monte, Cal., and W. N. Craig, Weymouth, Mass.

Discussions on business conditions in the seed industry led to a conviction that shortages of many kinds of seed would develop thru curtailment of imports, and rising prices on such seeds are to be expected.

The Argentine grain board bought 5,300,000 bus. of old and new wheat on Dec. 2, the first day that its stabilized price of about 54½c per bushel went into effect.

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St. Louis, Missouri

Certified Hybrid Corn a Safe Buy

By J. L. Robinson, sec'y Iowa Corn and Small Grain Growers Ass'n

The buyer of certified hybrid corn is buying a hybrid proved by unbiased tests to be superior.

In Iowa, certified hybrid seed corn is grown under the strict supervision of the Iowa Agricultural Experiment Station. Such corn must have outyielded by at least 10 per cent the average of the open-pollinated strains in at least 2 of the past 5 years. It must have been grown at least 700 feet from other corn, must have been properly detasseled, and must germinate 90 per cent or better to qualify for the blue tag, or 75 to 89 per cent for red tags.

Seed corn grown under rigorous requirements and planted in the proper zone or district will pay the farmer.

Spain is negotiating for a \$100,000,000 loan from the United States for the purchase of wheat, gasoline, cotton, rubber and meat.

War Cuts Seed Imports

Imports of agricultural seeds for November and the five months ending November, 1940, compared with the like periods a year earlier, as reported by the U.S.D.A. have been as follows, in pounds:

	November 1940	July 1 to Nov. 30 1939	July 1 to Nov. 30 1940	July 1 to Nov. 30 1939
Alfalfa	175,800	235,000	217,000	557,300
Barley	.....	.....	80,000	.....
Bean, Mung	91,300	.....	976,600	.....
Bentgrass	.....	3,700	16,500	85,300
Bluegrass, annual	.....	400	.....	400
Bluegrass, Canada	.....	9,300	2,200	11,600
Bluegrass, rough	.....	196,200	500	461,400
Brome, smooth	607,800	585,500	1,002,800	1,619,700
Chickpea	400	.....	400	.....
Clover, alsike	.....	54,100	200	263,900
Clover, crim'n	.....	297,300	.....	4,743,600
Clover, red	.....	.....	200	13,200
Clover, subterranean	200	500	6,300	900
Clover, suckl'g	2,200	14,600	7,400	24,000
Clover, white	12,600	87,700	22,700	397,900
Dogtail, crested	.....	6,400	.....	6,400
Fescue, Chewings	5,900	34,800	719,400	428,200
Fescue, meadow	.....	11,000	.....	24,300
Fescue, other	2,000	40,500	5,200	45,700
Grass, Bahia	16,000	12,000	31,000	42,900
Grass, Bermuda	.....	.....	200	.....
Grass, Dallis	2,200	6,700	95,100	80,700
Grass, Guinea	100	2,800	100	56,100
Grass, molasses	1,800	500	1,800	42,000
Grass, orch'd	.....	8,700	1,000	79,000
Grass, rescue	.....	.....	37,200	200
Grass, Rhodes	.....	23,000	53,200	79,400
Grass, velvet	.....	.....	2,100	4,000
Kudzu	.....	.....	1,200	5,000
Lupine	137,100	.....	236,800	.....
Medick, black	31,800	.....	88,100	84,800
Mixtures, alsike and timothy	.....	34,300	.....	34,300
Mixtures, grass	.....	.....	9,100	29,500
Oat	409,400	.....	750,000	.....
Pea, field	500	.....	800	.....
Rape, winter	.....	498,200	240,000	1,944,900
Rye	83,700	.....	83,900	.....
Ryegrass, Italian	900	100,000	900	205,000
Ryegrass, perennial	.....	127,200	17,200	229,700
Sourclover	.....	.....	35,000	.....
Sweetclover	100	1,380,400	322,300	1,699,600
Timothy	.....	.....	100	.....
Vetch, com'n	.....	88,100	.....	110,100
Vetch, hairy	.....	70,000	27,000	2,611,400
Vetch, purple	.....	.....	1,000	.....
Wheat	16,600	.....	26,300	.....
Wheatgrass, crested	170,700	403,000	413,800	666,800
Wheatgrass, slender	4,000	5,800	6,900	28,500
Total	1,773,100	4,337,700	5,503,400	16,754,000

Oscar Loe Favors Tall Fescue

By C. C. JURGEN

Two years ago Oscar Loe of Silverton, Ore., confided in friends that not only was he going to grass, but he was also going to seed.

In the summer of 1940, Mr. Loe began to reap his sowings. Seed was harvested from 500 acres of grass, and he gained the reputation of being the most extensive individual grass seed grower in Oregon.

In his plantings were 200 acres of each Chewings' Fescue and of Tall Fescue. The remainder of the acreage was divided between English Ryegrass and Highland Canary, Meadow Foxtail and Creeping Red Fescue. He is said to be one of three men who this year harvested what is cal'd America's first commercial crop of Creeping Red Fescue.

Cleaning equipment for grass seeds were not plentiful. Also they were not near at hand. Because Mr. Loe intends to remain in the grass growing business, he designed and had built

a warehouse on his ranch near Silverton and now boasts it is both mouse-proof and fire-proof. It will be equipped with modern seed cleaning machinery so that Mr. Loe can clean his entire crop at home.

When questioned as to which grass he likes the best, Mr. Loe reports that it depends upon what the grass is designed for. But he admits a special fondness for Tall Fescue. To learn the possibilities of this grass, as well as other grasses, he planted not only in the low lands of the Willamette Valley, but also in the hill country. Tall Fescue, he reports, has proved well suited to heavy wet soils and it has done almost equally well on hillsides. The grass has proved exceptional pasture material.

In the late fall of 1940, when fifteen growers of the Tall Fescue gathered at Salem to form the first Oregon Tall Fescue Seed Growers Ass'n, Mr. Loe was made president, and Robert Rieder, Marion County Agricultural Agent, secretary.



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The GRAIN DEALERS JOURNAL.

The new organization will attempt to get the name officially established and will also distribute seed to experiment stations throughout the United States for trial under various conditions.

Mixing Lespedeza Seed

Lespedeza seed that is harvested from one farmer's field may be as different in make-up as if harvested from fields of different farmers. The lower side of the field, near the creek, or river, often is infested with Johnson Grass, for example, and the low places are favorable to the growth of dodder. Other parts of the lespedeza field may be free of Johnson Grass and dodder, but these may have more ragweed, bracted plantain and "poor joe." Therefore it is important that the seed should be mixed and bulked in such a way as to make the lot uniform in content.

A purity analysis of blended seed will usually hold up, whereas successive analyses of unblended lots will vary so much that officials of a state seed laboratory may be compelled to report it as mislabeled. Hence, it is important to clean and blend lespedeza seed lots, first, to make them salable, and second, to make them sufficiently uniform to prevent cases of misbranding.

When mixing lespedeza seed into a uniform lot, that is, blending, the following simple and effective method should be used: "Strew out the contents of each bag evenly in long, thin, parallel lines on a smooth floor. This should be done systematically so that the seed from each bag will be strewn over about the same distance. When all the bags in the lot are thus emptied, mix by shoveling together several times. DO NOT SHOVEL INTO A PILE. After the shoveling the seed should still be in a long, low ridge, and should be sacked from this position. Up to fifty or more bags may be thus mixed at a time."—John E. Casey, seed analyst, Arkansas State Plant Board.

Tenmarq and Blackhull Lead in Kansas

Professor A. L. Clapp of the Department of Agronomy of Kansas State College reports that in the 1940 harvest in the two big central Kansas wheat districts, Tenmarq and Blackhull continue to be the high yielding varieties, with Tenmarq ahead by 1.4 bus. in the south and 0.2 ahead in the north central district. The test weight of Blackhull was slightly higher.

Further west Blackhull and Turkey varieties predominated, but Tenmarq out-yielded both varieties this year as in nine previous years of grower co-operating tests in that section.

The rapid increase of Tenmarq acreage over the entire "big hard wheat" section of the state again is notable. With only 1.3 per cent of the entire acreage seeded to this variety in 1934, the sown acreage last year was 19.6 per cent, giving it second rank in grower preference. A considerable part of this increase has been at the expense of Turkey, the acreage of which in the state as a whole has declined from 82 per cent in 1919 to 28 per cent in the 1940 harvest. Millers like Turkey wheat for flour milling purposes but both they and their bakery customers find Tenmarq the most satisfactory of all established and approved Kansas varieties.

Prof. Clapp's report on the wheat variety tests participated in by 83 co-operating farmers, together with his surveys showing the steadily increasing acreages of wheat preferred by millers, demonstrate the value of the work being carried on by the Kansas Wheat Improvement Association in complete harmony with Kansas State College, the Bureau of Plant Industry and other government agencies.

Wisconsin Seedsmen Meet at Portage

President E. J. DeBroux was re-elected to serve another term at the head of the Wisconsin Seed Dealers Ass'n, during the organization's annual convention, held at the Hotel Raulf, Portage, Dec. 11. Fred Dyson was made vice-president; J. W. Jung, sec'y-treasurer. Directors elected were Wm. Knauf, R. H. Lang, and Henry Michels. Named to the Seed Council were F. E. Parker, A. L. King, F. W. Kellogg, and L. Teweles.

President DeBroux presided over the business sessions, at which resolutions were adopted raising the annual dues from \$2 to \$3; thanking officers and directors for their work in behalf of the members, and asking the proposed Wisconsin Seed Law be limited to agricultural seeds other than vegetable seeds, because vegetable seeds in many cases are so high priced that samples of the size requested for analysis are too costly. Cauliflower seed, for example, was valued at from \$32 to \$50 per pound.

Speakers appearing on the convention program, and enjoying close attention from the 74 delegates registered, included: Dr. L. F. Graber, chief of the agronomy department of the University of Wisconsin, on "Plant Breeding and Its Relation to Seed Dealers and Growers"; John F. Tormey, F. S. A., on "Wisconsin Farm Problems"; W. Ebling, statistician for the joint Wisconsin and U. S. D. A. agricultural service, on "Sources of Seed Supply Information"; E. D. Holden, of the Wisconsin Experiment Ass'n, on the "Wisconsin Seed Dealers Educational Program," and Henry Lunz, state seed inspector on the "Proposed Wisconsin Seed Law."

Canadian buyers recently purchased a ship-load of Argentine corn, with the ocean freight 32 cents per bushel to Halifax.

Production of Leading Seed Crops in the United States, 1936-1940

Reported by the U. S. Dept. of Agriculture, in thousands of pounds

Year .	Alfalfa	Red Clover	Alsike Clover	Sweet Clover	Lespe-deza	Timothy	Kentucky ¹ Bluegrass	Orchard ² Grass	Red-top ³	Sudan Grass	Meadow ³ Fescue	White Clover	Crimson Clover
1936 .	53,268	45,408	26,496	46,200	38,364	41,706	21,000	1,750	6,750	30,778	400	500	1,000
1937 .	58,860	30,528	13,038	49,020	112,655	113,818	77,000	3,850	19,500	59,240	325	300	1,500
1938 .	62,040	114,294	24,180	62,046	205,700	57,974	18,200	2,030	15,750	54,684	150	250	2,800
1939 .	89,292	107,886	19,158	85,056	145,371	63,801	21,000	4,200	15,750	78,906	600	660	3,560
1940 .	87,180	119,664	25,338	54,042	159,120	59,080	33,600	4,060	12,600	46,185	2,000	831	3,750

¹Rough cured seed. ²Thresher-run seed. ³Recleaned seed.

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GOODRICH BROS. CO. ELEVATOR
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Georgia Seedsmen Hold First Meeting at Macon

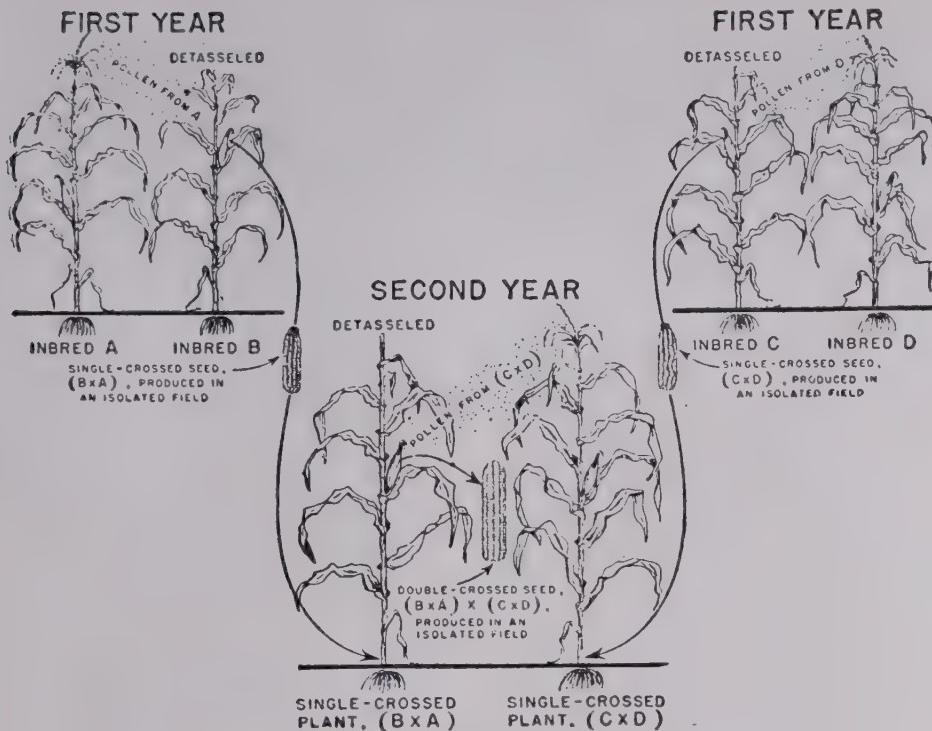
Georgia seedsmen gathered for the first annual meeting of the Georgia Seedsmen's Ass'n at the Dempsey Hotel, Macon, Dec. 10 and 11.

President R. E. L. Snellson presided at the business sessions, the first of which was opened with prayer by Rev. Charles A. Jackson, Jr.

Prominent speakers were Dr. Glenn W. Burton, of the Coastal Plains Experiment Station, at Tifton, on "Experiment Station Cooperation"; Stuart C. Simpson, president of the Southern Seedsmen's Ass'n, on the "National Com'ite on Seed Distribution," and Paul Chapman, dean of the Georgia College of Agriculture, Athens, on "Educational Objectives for Georgia's Changing Agriculture."

A cocktail party, a banquet, and a floor show were features of entertainment during the two-day convention.

Switzerland has seized the 1940 crop of bread grains, and reserve supplies. Producers who had disposed of any 1940 grain were likewise required to report the name of the purchasers and the quantities sold.



How Seed Is Produced on Single and Double Cross Hybrid.

Hybridization of Corn

To those who are unfamiliar with the genetics of Mendel the sketch herewith will be helpful in visualizing the early steps taken in creating a single and double cross of hybrid corn.

More than 350 genes in corn have been isolated and their inheritance determined, enabling breeders by long continued work to create almost any desired kind of corn.

Protein Survey of Canadian Barley

J. Ansel Anderson and W. J. Eva of the grain research laboratory of the Board of Grain Commissioners at Winnipeg on Dec. 14 gave the results of the seventh annual protein survey of Western Canadian barley, on the 1940 crop.

Analyses of weekly inspection office "Averages" for each grade of Western Canadian barley show that the mean protein content of the 1940 crop is 11.9%, which is 0.2% lower than the final level for the 1939 crop. The protein contents of Nos. 2 C.W. six-row and 2 feed are 0.3% lower this year than last, while Nos. 3 C.W. six-row, 1 feed and 3 feed, have the same protein contents as corresponding grades for 1939. The remaining grades contain only small proportions of the crop.

Because maltsters endeavor to obtain barleys falling within a definite protein range, whereas little attention is paid to the protein content of feed barley, the annual survey of the protein contents of carlot shipments is confined to the six-row malting grades.

The average protein level is highest in Manitoba, which produces the bulk of the malting barley, and appreciably lower in Saskatchewan and Alberta where malting barley is produced in more northerly areas. The protein contents of grades 2 and 3 C.W. six-row were approximately equal in Manitoba, whereas in both Saskatchewan and Alberta the protein content of 2 C.W. six-row was considerably lower than that of 3 C.W. six-row.

The Argentine government on Dec. 5 decreed that all future trading on corn on the Buenos Aires market be suspended. Free corn has been selling under the government buying price.

An order to cease and desist from violation of the brokerage provision of the Robinson-Patman Act have been issued by the Federal Trade Commission against Walter W. Thrasher, Willoughby J. Rothrock, Linton A. Thrasher and Wainwright Churchill, trading as Thomas Roberts & Co., Philadelphia, who purchase canned fruits and vegetables for their own account and resell them to jobbers, wholesalers, retail chain stores and other purchasers.

Wheat Loans Total 265,909,733 Bus.

Commodity Credit Corporation has announced wheat loans totaling 265,909,733 bus., valued at \$192,057,989.90, for the week ending Dec. 10, 1940. This compares to 163,311,402 bus., valued at \$114,329,540.33, on the same date last year.

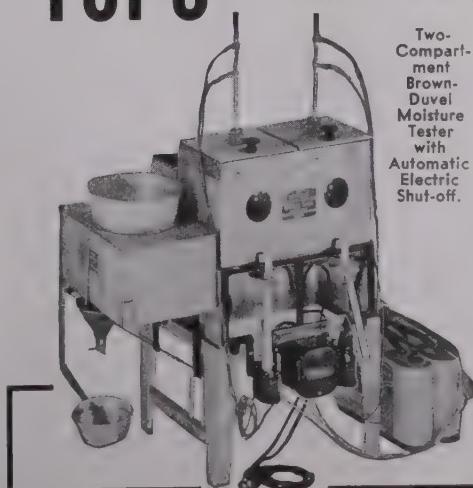
Announcement by the Corporation on barley loans as of Dec. 10, 1940, shows 6,745,680 bus., valued at \$2,151,774.08, and on rye loans as of the same date 3,698,608 bus., valued at \$1,389,819.40.

Wheat Loans for States Are

State	No. Loans	Farm Storage	Warehouse Storage	Amount
Ark.	30	....	12,677	9,407.47
Calif.	38	34,095	95,726	88,208.98
Colo.	4,242	884,503	2,309,714	2,103,072.11
Dela.	3	....	1,625	1,327.13
Idaho	3,915	1,624,397	5,139,431	3,612,146.78
Ill.	26,952	639,858	12,040,810	10,128,907.03
Ind.	11,206	296,440	3,153,428	2,669,495.65
Iowa	5,174	396,163	2,322,041	2,023,984.14
Kan.	65,869	7,640,938	39,150,036	33,497,370.95
Ky.	1,275	....	494,710	371,659.92
Md.	113	....	55,617	39,466.36
Mich.	1,460	223,839	150,904	260,433.94
Minn.	25,670	2,977,797	7,005,101	7,875,501.77
Mo.	20,817	311,091	8,359,803	6,515,053.22
Mont.	24,359	7,201,264	19,137,801	18,441,309.07
Neb.	32,407	5,059,824	9,857,971	10,804,633.56
N. Mex.	439	69,069	344,970	294,660.25
N. Dak.	87,833	8,177,897	46,165,118	41,247,723.97
Ohio	12,190	357,670	3,663,317	3,218,910.23
Oklahoma	31,179	2,412,838	18,059,180	14,679,462.39
Ore.	2,039	758,634	4,758,105	3,223,561.62
Penn.	478	....	123,526	92,090.25
S. Dak.	40,392	2,949,878	10,589,338	10,112,982.30
Tenn.	858	....	274,334	215,018.07
Texas	19,569	1,505,872	17,127,481	13,674,252.43
Utah	476	637,262	201,968	413,776.50
Va.	622	....	176,604	134,362.80
Wash.	3,874	1,222,747	9,040,156	5,796,643.69
W. Va.	24	....	9,687	8,354.04
Wis.	1	172	....	115.24
Wyo.	802	323,560	382,806	493,089.04
Total	424,336	45,705,748	220,203,985	192,057,980.90

By Dec. 17 the total number of bushels under loan had risen to 267,576,156. The C. C. C. will lend no more on wheat of the 1940 crop after Dec. 31, 1940.

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Feedstuffs

An inventory of the nation's feed resources is being prepared for the National Defense Commission, under direction of George Livingston.

Distillers Dried Grains production during November totaled 17,100 tons, against 14,400 tons in November, 1939, as reported by the U. S. D. A.

Dr. A. A. Horvath, chemist, author of the valuable work "The Soybean Industry," until recently with the Horvath Laboratories at Chambersburg, Pa., has removed to Pittsburgh, Pa., to conduct a consulting office.

Trenton, N. J.—The com'ite substitute for Senate Bill No. 174 applies to feeds, seeds, insecticides and foods, and is intended to prevent fraud in the distribution of commodities in containers or packages.

Eugene, Ore.—The wage and hour law was the topic of discussion at a meeting recently of 22 members of the Oregon Feed Dealers Ass'n at Seymour's Cafe. Feed regulations also came in for discussion.

J. Frampton King of Georgia is chairman of the com'ite recently appointed by Pres. John B. Smith of the Ass'n of American Feed Control Officials to work out a collaborative check of feed samples. Thos. C. Law, commercial chemist of Atlanta, Ga., has been designated to aid in carrying out the plan.

Kansas City, Mo.—The Kansas City Feed Club on Dec. 11 elected Maurice Johnson pres., Courtney H. Cotton, vice president; C. E. Miller, treas., and T. G. Stephenson, sec'y. The meeting was largely attended by 95 members and guests. A trio of musicians furnished entertainment.

New York, N. Y.—That the sale of dog foods bearing the official seal of approval of the American Animal Hospital Ass'n and the American Veterinary Medical Ass'n is expanding rapidly thruout the United States, was reported here recently during the third annual meeting of manufacturers of approved dog foods at the Hotel Pennsylvania.

Decatur, Ill.—On account of the excellent quality of this year's oat crop, many growers have been grinding them for livestock feed, in many cases substituting for corn under seal. However, pound for pound, oats are now worth more on the market than corn. Therefore, it would seem probable that growers might be more inclined to market their oats and feed corn.—Baldwin Elevator Co.

Washington, D. C.—Supplies of feed grains available after Oct. 1 are now estimated at about 115 million tons, the second largest supply since 1920. Excluding corn the supply is slightly smaller than that of last year and about the same as the 1928-32 sealed or held by the government on Oct. 1, average. The supply per animal unit, excluding sealed corn, however, is above that of last year and is also above the 1928-32 average.—U. S. D. A.

Dairymen and livestock feeders are in a more favorable position than a year ago in respect to feedstuffs prices. Feed rations on high protein concentrates particularly, are more favorable than last season. Based on prices of butterfat in Illinois on Nov. 15, and market quotations of soybean meal at Chicago, 100 lbs. of butterfat would purchase 1,970 lbs. of soybean meal this season compared with only 1,650 lbs. a year ago.—U. S. D. A.

Brewers Dried Grains amounting to 6,400 tons was produced in November, against 6,900 tons in November, 1939, as reported by the U. S. D. A.

Los Angeles, Cal.—A dinner meeting for feed men will be held at the Jonathan Club, Dec. 30 at 7:15 p. m., as arranged by R. A. Mayer, vice pres. of the California Hay, Grain & Feed Ass'n. This general meeting is of special significance to wholesale and retail Feed Manufacturers; Alfalfa Millers; Wholesale Hay and other concerns who might be affected by the Federal Wage & Hour Law; and other problems before the Feed Industry in California. The guest and speaker will be Ralph M. Field, president of the American Feed Manufacturers' Ass'n, Inc.

Seasonal Exemption Granted Alfalfa Driers

Philip B. Fleming, administrator of the Wage and Hour Division of the U. S. Dept. of Labor on Dec. 2 issued the following ruling:

Green alfalfa hay used in the manufacture of artificially dehydrated alfalfa, alfalfa leaf, and alfalfa stem meals is available for harvest only during a restricted season or seasons of the year; and

During these periods green hay is moved directly from the fields into artificial dehydrators from whence it passes without delay into mills which convert it into meal; and

Such combined dehydrators and mills necessarily operate only during the periods in which green alfalfa hay is available and such periods of availability do not customarily exceed four months and in no case six months during any calendar year; and

The combined dehydrators and mills are closed during the remainder of the year except for sales, maintenance and repair work because green alfalfa hay is not available due to natural conditions.

WHEREAS, The administrator determined pursuant to section 526.5(b)(ii) of the regulations that a *prima facie* case had been shown for the granting of an exemption pursuant to section 7(b)(3) of the Fair Labor Standards Act of 1938 and part 526 of the regulations issued thereunder to the artificial drying of hay and subsequent manufacture of meal therefrom, that (b) in accordance with the procedure established by section 526.5(b)(ii) of the regulations, the Administrator for fifteen days thereafter would receive objection to the granting of the exemption and that (c) if no objection and request for hearing was received within fifteen days, the Administrator would make a finding upon the *prima facie* case; and

WHEREAS, No objection and request for hearing was received by the Administrator within the said fifteen days: now

THEREFORE, Pursuant to section 526.5(b)(ii) of the regulations, as amended, the Administrator hereby finds on the *prima facie* case shown in the said application that the artificial drying of hay and subsequent manufacture of meal therefrom is a seasonal industry within the meaning of section 7(b)(3) of the Fair Labor Standards Act of 1938 and regulations issued thereunder, and therefore is entitled to the exemption provided in section 7(b)(3) of the said act.

Protein and Vitamin Supplement for Growing and Fattening Pigs

By JOHN P. WILLMAN at Cornell Nutrition School

The trio-mixture, a combination of 50 pounds of digester tankage, 25 pounds of linseed meal, and 25 pounds of ground field-cured alfalfa hay, which was developed by Morrison, Bohstedt and Fargo at the Wisconsin Station about twenty years ago, has become a standard supplement to yellow corn for pigs fed in dry lot. It is sometimes called the Wisconsin-mixture or the trio-mixture. The superiority of a ration of yellow corn and the trio-mixture has been demonstrated many times at several experiment stations.

The use of the trio-mixture instead of tankage alone, as a protein supplement, has enabled pigs fed in dry lot to make more rapid and more efficient gains and to remain in a healthier, more thrifty condition. The inclusion of a small amount, about five per cent, of sun-cured alfalfa hay in the ration seems to prevent the occurrence of rickets in fall pigs fed in dry lot. The trio-mixture supplies protein of good quality, minerals, especially calcium, and varying amounts of vitamins A and D.

The trio-mixture has given good results when fed to pigs on good pasture as a supplement to corn. However, experience has shown that ground or chopped alfalfa or other legume hay is not needed when the pigs have access to a good pasture. A mixture of equal parts, by weight, of digester tankage and linseed meal is an efficient supplement to corn when the pigs have access to good pasture. Growing and fattening pigs may be given free access to these supplemental mixtures, and to shelled or ground corn placed in separate compartments of a self-feeder, or the grain may be mixed with the supplements and may be self-fed or hand-fed.

Professor Morrison and the speaker and a number of graduate students have conducted a number of trials at this station during the past ten years to determine if possible whether certain additions or substitutions would improve these standard supplemental mixtures. In one series of trials menhaden fish meal and white

Imports and Exports of Feeds

Imports and exports of feedstuffs during October and for 10 months ending October 1940, and 1939, as reported by the Bureau of Foreign and Domestic Commerce, were as follows, in tons of 2,240 lbs. except where noted otherwise:

	1940 October	1939 October	1940 10 Mos. Ending Oct.	1939 35,550
Hay*	2,460	6,913	43,963	
Coconut cake	13,786,480	9,828,372	162,894,976	93,684,566
Soybean cake	2,644,000	1,146,419	22,837,752	22,286,089
Cottonseed cake	10,081,297	90,000	72,712,740	6,752,991
Linseed cake	.....	.....	2,556,000	9,649,091
All other cake	319,227	1,500	19,034,022	20,848,383
Wheat fds.*	58,507	58,494	397,135	372,951
Beet pulp*	3,603	1,993	4,641	9,968
Tankage	6,724	3,756	50,574	56,252
Fish-scrap	2,401	2,152	35,659	35,312
EXPORTS				
Hay	376	72	3,179	2,106
Cot'n's'd cake	.....	.....	31	174
Linseed cake	512	6,086	84,283	188,208
Other oil cake	.....	50	1,205	4,945
Cotton's'd meal	125	2,085	868	5,247
Linseed meal	281	400	3,629	9,952
Eabassu cake-meal	.....	300	368	970
Soybean oil cake meal	1,544	6,197	34,790	30,271
Other oil meal cake	56	1,130	10,199	5,136
Fish meal	19	32	223	282
Mxd. dairy & poultry fds.	644	498	7,138	9,125
Oyster shells	1,473	7,529	16,995	46,035
Other prepared & mxd. fds.	67	124	1,662	2,906
Other feed bran	465	1,087	10,758	16,034
Kafir, milo (bus.)	....	18	1,321	1,390

*2,000-lb. tons. †Pounds.

fish meal were used as substitutes for digester tankage in rations fed to pigs in dry lot and also in rations for pigs fed on good pasture.

The average of seven trials shows little difference in the results obtained from the use of digester tankage and menhaden fish meal as supplements for fall pigs fed in dry lot. When fed in the same manner, white fish meal, if of good quality, was found to be equal or superior to digester tankage. It should be borne in mind, however, that white fish meal gave very unsatisfactory results in two or six feeding trials conducted.

Coarse Grinding for Sorghum

The small round sorghum seeds are apt to pass thru the animal without being digested if fed unground and, on the other hand, if ground too fine, considerable feed will be wasted by blowing away and is apt to form a gummy mass in their mouths.

Feeding trials recently completed by the Animal Husbandry department at the South Dakota State College show that grain sorghums are practically equal to corn in feeding value.

Varieties profitably fed are Colby milo, Sooner milo, and early kale.

Illinois Soybean Program

Soybean problems will be considered Jan. 7 at the University of Illinois in meetings to be held in the Auditorium and the University Place Christian Church, Urbana, the following topics being scheduled:

"Costs of producing soybeans and the competitive position of the crop in Illinois agriculture."—R. H. Wilcox.

"Cultural and harvesting practices affecting yields and market quality of soybeans."—W. L. Burlison.

"The market competition which soybean products must face"—L. J. Norton.

"Technical problems involved in wider use of soybean oil"—R. T. Milner, United States Soybean Laboratory.

"Soybean meal as a feed for dairy cattle"—W. B. Nevens.

"For Meat Animals"—R. R. Snapp.

"For Poultry"—L. E. Card.

"Building the market for soybean meal"—J. W. Hayward, Director of Nutritional Research, Minneapolis.

"Handling soybeans to prevent loss of quality in storage"—Harold Wilbur, elevator superintendent, Decatur.

"Price prospects for soybeans and soybean products as indicated by past relationships"—G. L. Jordan.

Senator Patman has prepared a new bill imposing a progressively increasing tax on the number of stores operated by chains.

Adding Supplement to Corn for Calves on Pasture

By PAUL GERLAUGH, Ohio Exp. Sta.

The addition of supplement to corn for calves on pasture was tested during the growing seasons of the years 1934 to 1939, inclusive. Home-grown Aberdeen Angus steer and heifer calves were used. Most of these calves were dropped during October and November of the year preceding their use in the feeding trials. As soon as the calves were big enough to eat additional feed, creeps were made, and the calves were permitted to run to these creeps for grain and roughage. The calves were weaned about 2 weeks before the test started. All calves were in excellent flesh at the beginning of the tests. They were divided into groups on the basis of sex and size.

A permanent bluegrass pasture about 12½ acres in size was divided into two approximately equal areas for use by the two lots of calves. The pasture would be considered excellent for one not treated with additional nitrogen fertilizer.

Shelled corn was used in each of the tests and was full-fed from early July to the close of the tests. It was planned to feed about three-fourths of a full feed from the start of the test to early July.

Cottonseed meal was used as the supplement during the first five years of the test. During the last test, a supplement composed of dry-rendered tankage, 30 parts soybean oil meal, 30 parts cottonseed meal, 20 parts linseed meal, 15 parts bone meal, 2 parts limestone, 2 parts and salt, 1 part was fed.

During the first 2 years, the calves that did not receive supplement gained as well as the calves receiving supplement. During the last 4 years, there was a difference in the gains favoring the lots getting the supplement.

When removed from the pasture test, the calves were placed in dry lot and fed until about the middle of December, when they were sold. Their quality and finish were always sufficient to command the top of the Chicago market, and in a few cases, a premium. When the test was continued after a killing frost, the lot of calves receiving no supplement fell off noticeably in gains. The same thing happens when the grass dries during late summer.

In none of the years were the cattle sold at the close of the pasture season. In our opinion the lot fed the supplement was worth as much per hundredweight as the lot without supplement. In most cases these lots were worth more, probably an average of 15 cents per hundredweight.

Our experience justifies the statement that the addition of a pound of supplement is well worth while for calves that are being fattened on pasture. Any exception to the statement would be confined to the early part of the pasture season when the grass is growing rapidly.

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Colorado's First Nutrition School

More than 50 feed manufacturers, grain and feed dealers, nutritional experts, and feed ingredient representatives went to Fort Collins, Colo., Dec. 12 and 13 to attend the first nutritional school for the trade organized by the Colorado State College of Agriculture & Mechanical Arts.

The school proved successful in promoting mutual understanding between college authorities, and the practical feed trade, and in passing along to the latter information learned in late and current experiments in feeding livestock. The "students" voted unanimously that another school be held in Fort Collins next year.

IVAN WATSON, of the college, illustrated with graphs a talk covering studies in feeding grains to cattle and lambs. With corn at 100 per cent, as the accepted standard, he showed that barley has a feeding value of 90 per cent to 95 per cent when used as a part of the grain ration for fattening cattle. Wheat's feeding value was placed at 85 per cent, being most valuable as a growth promoting grain, but it should constitute no more than one-third of the grain ration. Molasses, in small quantities, almost equals corn in feeding value, but in large quantities its feeding value drops. Cane and beet molasses are about equal in feeding value.

Cattle fattening rations are suitable for fattening lambs, as a general rule, said Mr. Watson. But in lamb feeding there are some exceptions. For example: Barley may be fed successfully as the only grain in the rations; grinding of grains for lambs is not profitable; cut cane fodder has less feeding value for lambs than for cattle; dry roughages generally are more efficiently used by fattening lambs than by fattening cattle.

H. C. DICKEY, of the college, summed up experimental findings in "Dairy Feeding Facts." He said: "The average dairy cow receiving legume hay usually receives plenty of calcium to meet daily requirements. However, the phosphorus which is supplied is usually less than her daily requirements. Therefore, it is well to supply the cow with a mineral supplement containing phosphorus. A good phosphorus supplement is steamed bone meal. This may be fed in the dairy ration by adding 1 per cent to the grain mixture.

"Successful calf raising begins with the feeding and care of the pregnant cow," he added. "Both for milk production and for health of the coming calf, the cow must be fed plenty of first-class roughage, supplemented by a balanced grain ration, during the entire period of pregnancy."

CY W. SIEVERT, Chicago, pointed out that college authorities and feed manufacturers work to the same final end in developing better feeds and better feeding practices. The aim of both, he said, is to improve agriculture.

W. C. TULLY, Denver, pointed out that feed manufacturers must provide a margin of safety in compounding feeds by providing more of the essential nutrients than guarantees call for, because there are variations in the quality of feed ingredients. He urged use of high quality ingredients to reduce this variability in quality.

DR. T. H. JUKES, of the division of poultry husbandry, University of California, explained factors leading to perosis in chicks, pointing out that choline in addition to manganese prevents perosis in chicks. "Choline, creatine and manganese have been demonstrated to be essential to growth," he said, "and also play conflicting parts in the etiology of perosis."

L. E. WASHBURN, of Colorado's col-

lege, dwelt upon the place of minerals in feeding animals. He named calcium, phosphorus, iron, copper, iodine, manganese, cobalt, magnesium, sodium, chlorine, potassium, zinc, bromine and boron as necessary minerals in feeding, and added that recent investigations lead to a conviction that arsenic, fluorine, and nickel are also necessary.

R. C. TOM, of the college, named as causes of urinary calculi in cattle and sheep: A deficiency or unbalanced vitamins. Vitamins concerned are chiefly A and D, and perhaps B; usually an absence of balance between two or more minerals; particularly calcium, phosphorus, magnesium and perhaps aluminum; a departure from the normal pH of the urine, with the reaction usually toward excess alkalinity.

Less frequent factors are: Low protein and high starch content of the ration; vitamin A deficiency accompanied by a high protein or low phosphate content of the ration; foods of high oxalate content; raw plant foods, high in oxalate content; failure to assimilate vitamin A, when present in sufficient quantity.

Hard water, Mr. Tom said, has been frequently blamed by feeders for urinary calculi, but no experimental evidence supports this theory. The amount of the water consumed has more influence on calculi than whether the water is soft or hard.

A. H. MENDONCA, San Francisco, said: "The poultry industry is responsible for much of the improvement in the quality of fish products during recent years. Not long ago fish meal was a crude nitrogen fertilizer, fish oils were almost entirely used for industrial purposes and fish livers were not utilized. Today these fishery products play an important role in animal feeding."

Cooking, drying, canning and storage conditions affect fish meal quality, he said. Proteins are delicate and their digestibility is easily impaired; their breakdown into less desirable nitrogen products can take place rapidly in raw materials, and prolonged excessive temperatures are particularly damaging.

J. W. HAYWARD, Minneapolis, predicted soybean meal will be used in ever-increasing amounts in feeding livestock and poultry.

"Among vegetable proteins soybean oil meal has no superior," he declared. "It is high in digestibility and the protein of soybean oil meal is more complete than proteins of other supplements of vegetable origin and many proteins of animal origin in its content of amino acids essential for growth, egg, wool and milk production."

H. S. WILGUS, JR., of the college poultry husbandry department, stressed the necessity for feeding the best formulas and the highest quality feed ingredients.

"Information that choline, particularly common in soybean oil meal, is necessary in addition to manganese, explains why that feedstuff is so helpful in preventing perosis," he said. "The effect of excess calcium in the ration on the availability of manganese stresses the need to avoid an excess of calcium in chick rations."

Officers Chosen by Warehouse Department Heads

The National Ass'n of State Warehouse Departments recently in convention at Hotel Utah, Salt Lake City, elected Scott B. Bateman, Kansas City, Kan., president for the ensuing year. Mr. Bateman is warehouse examiner for the Kansas state grain inspection department.

Other officers elected were J. J. Murphy, Pierre, S. D., vice-pres.; George E. Truman,

Lincoln, Neb., sec'y; J. W. Buffington, Jefferson City, Mo., chairman of the legislative com'te.

The organization will meet next year in Denver. Its purpose is to protect both growers and warehousemen's interests thru legislation and control.

Nutritional Encephalomalacia in Chicks

By L. G. NORRIS, of Cornell University, at the Cornell Nutrition School.

Nutritional encephalomalacia is a disease of chicks in which severe degeneration of the brain occurs. This results in muscular incoordination, inability to stand erect, and spasms followed usually by death. The disease is produced by feeding a special experimental ration containing generally about 20 per cent of lard. It appears to be indistinguishable from a field condition frequently called the "crazy chick disease." The percentage incidence of nutritional encephalomalacia in chicks fed a high-lard ration, however, is much greater than that which occurs in the field in chicks fed normal rations.

In work conducted at Cornell University, evidence has been obtained which confirms the results of Dam of Copenhagen, Denmark, and of Pappenheimer and associates of Columbia University and the Connecticut (Storrs) Agricultural Experiment Station, showing that natural and synthetic alpha-tocopherol (vitamin E) prevents the development of nutritional encephalomalacia when fed simultaneously with, but independently of, the high-fat experimental ration. In the work conducted here, prevention of encephalomalacia was obtained by mixing the alpha-tocopherol in the lard portion of the diet, by supplying it orally, and by injecting it into the peritoneal cavity. In this work the incidence of nutritional encephalomalacia in the chicks fed the unsupplemented high-lard ration at four weeks of age was approximately 65 per cent. The incidence of encephalomalacia in the chicks fed a ration composed of the same ingredients, except the lard, was zero. The addition of the antioxidant, alpha-naphthol, to the lard portion of the experimental ration, or supplying this antioxidant orally, markedly reduced the incidence of encephalomalacia. The alpha-naphthol, however, was not as effective a preventive agent as the alpha-tocopherol.

It appears probable from these results that the severe incidence of nutritional encephalomalacia in the chicks fed the unsupplemented high-lard ration was due to the presence of the lard, since this fat is lacking in natural antioxidants. In the absence of these antioxidants it is believed that the lard, upon being mixed in the feed, undergoes rapid oxidation producing organic peroxides which destroy the small amount of natural alpha-tocopherol in the ration. This explanation is supported by the results of preliminary work conducted at this Institution in which it has been found that, by storing a normal ration for three months at room temperature, it was possible to produce a small amount of nutritional encephalomalacia in the chicks. When the same ration was prepared of fresh ingredients and fed immediately after mixing the disease did not develop.

These results are thought to be evidence that field encephalomalacia in chicks develop as the result of feeding a ration which has been stored at a reasonably high temperature for a prolonged period of time or by feeding a ration composed of ingredients which have been stored under similar conditions. Since much of the fat in normal chick rations is of vegetable origin and rich in natural antioxidants, their decomposition is delayed longer than that of lard which is lacking in these substances. Therefore, by feeding chicks normal rations, which usually contain approximately 4 per cent of fat, there is little danger of field encephalomalacia developing, it is believed, as long as reasonably fresh ingredients containing little undecomposed fats are used.

Feed Manufacturers to Meet in Virginia

The directors of the American Feed Manufacturers Ass'n have decided to hold the 1941 annual convention of the Ass'n at the Homestead Hotel, Hot Springs, Va., June 12, 13 and 14.

Fishy Flavor in Turkey Meat

At the Virginia Experiment Station four groups of bronze turkey poult were fed rations containing 20 per cent of flame-dried menhaden fish meal, 20 per cent of steam-dried fish meal, 20 per cent of meat scrap, and a combination of 10 per cent each of fishmeal and meat scrap respectively, to 21 weeks of age, at which time all the fishmeal in the rations was replaced by an equivalent amount of meat scrap.

Representative birds from each group were killed, roasted and scored for flavor at 21 weeks of age and at 2 week intervals thereafter until all traces of fishy flavor were eliminated from the cooked carcasses. Fishy flavor was detected in the roasted carcasses of turkeys receiving 10 per cent or more of fishmeal.

Fishy flavor was eliminated within 7 weeks after the 10 per cent level of fishmeal feeding was discontinued and within 8 weeks after the 20 per cent level was discontinued. The drippings had a more pronounced fishy flavor than did the meat, and male birds exhibited a slightly stronger fishy flavor than females. There was no marked difference in intensity of fishy flavor between the lots receiving the flame-dried and steam-dried meals.

Utilization of Food Elements by Chicks

In two series of experiments at the Nebraska Agricultural Experiment Station chicks fed rations containing 22 per cent of protein made greater gains on the same dry matter intake over the same period of time than chicks fed rations carrying 16 per cent of protein.

The ratio of gain in weight to nitrogen fed was greater in the chicks fed 16 per cent than in 22 per cent protein lots.

The chicks on the 16 per cent protein rations retained a higher percentage of nitrogen fed, but the percentage of nitrogen in the gain was not as high as that in the chicks fed rations containing 22 per cent of protein.

The slight differences in the percentage retentions of calcium and phosphorus can be ascribed to the differences in the percentage of those elements occurring in the rations as mixed.

The dilution of a complete ration with 30 parts of starch to yield a 16 per cent ration resulted in uniform and definite evidence of depraved appetite, including feather pulling and coprophagy. In addition the chicks fed the 16 per cent ration were uniformly poorly feathered and had large nude areas.

The substitution of kalo for corn in an otherwise complete ration for growing chicks had no significant effect on the growth rate of chicks up to 6 weeks of age.

The retention of nitrogen, calcium and phosphorus was not significantly altered by the use of kalo in the ration.

Instances of cannibalism were confined to the kalo-fed lot.

Trading in grain futures on the Chicago Board of Trade amounted to 444,523 bus. during November, 1940, compared with 368,904,000 bus. for October, 1940, and 460,747,000 bus. for November, 1939, the Commodity Exchange Administration has announced. Of the 444,523,000 bus. traded in all grain futures during November, 321,524,000 bus., or 72.3 per cent, was in wheat; 86,207,000 bus., or 19.4 per cent, in corn; 16,916,000 bus., or 3.8 per cent, in oats; 19,876,000 bus., or 4.5 per cent, in rye. May was the most active future for all grains, accounting for 56.4 per cent of the total volume of trading.

Supply Trade

South Downs, England, long a grazing ground, now is devoted to grain.

Chicago, Ill.—Nathaniel H. McKenzie, engineer in charge of design and construction for the Corn Products Refining Co. for the past 25 years, died Dec. 22.

New York, N. Y.—At the annual meeting of the American Standards Ass'n, Dec. 11, R. E. Zimmerman, vice pres. of the United States Steel Corporation, was elected president for the ensuing year.

The Ministry of Food has issued a regulation that farmers delivering flaxseed to a linseed oil mill are entitled to purchase for that mill one-half ton of oil cake for every ton of flaxseed.

War has not prevented a firm of milling engineers in North of England from completing a contract to furnish 1,750 tons of machinery for a flour mill at Cordoba, Argentina, for Minetti & Co., of Rosario, whose old mill burned in May.

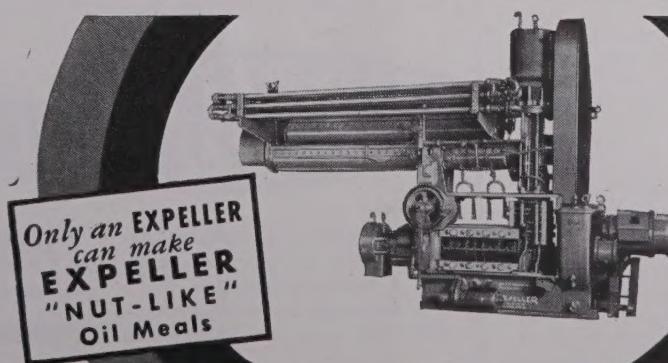
Port Arthur, Ont.—The Hon. C. D. Howe, now Minister of Munitions and Supply and formerly engaged in designing and building elevators, was a passenger on the British liner, Western Prince, which was torpedoed and sunk by a U-boat off the Irish Coast Dec. 14th. The many friends of Mr. Howe will be pleased to know he was among those saved from the wreck and has arrived safely at a British port.

Philadelphia, Pa.—SKF Industries, Inc., manufacturers of ball and roller bearings, is erecting an addition of 56,200 square feet of manufacturing floor space to Plant No. 2, on the Pennsylvania Railroad at Bridge Street. This building is fire-proof, saw-tooth construction, conforming to the design of the main building. In addition, a two-story brick wing enclosing 12,000 square feet is extending office facilities at Plant No. 1, Front Street and Erie Avenue, bringing the total enclosed area of both plants to 666,600 square feet.

Burgess Seed & Plant So., trading as V. & M. Products Co., Galesburg, Mich., distributor of a rat-killing preparation, has agreed with the Federal Trade Commission to desist from representing that its product, "Black Cat," will kill gophers, or mice of a species or class other than house mice; and that it kills rats and mice quickly.



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Poultry Feeds and Feeding

The heavy loss of grown turkeys caused by the wind storm of Nov. 11, and the low temperature immediately following will put many of the turkey farmers out of business. The destruction of so many birds will reduce the demand for feed and advance the cost of Christmas dinners.

Lincoln, Neb.—The Gooch Feed Mill Co. has agreed with the Federal Trade Commission to cease representing that favorable results in egg production or chick raising depend solely on using Gooch's chicken feeds; that a low feeding cost or a balanced egg making ration is insured by using Gooch's Best Laying Mash; that Gooch's Best Laying Mash will enable hens to lay more eggs, or have better body weight or condition, or be more vigorous or resistant to disease than any other product.

Roseville, Cal.—The fields of watermelon in the Roseville area are not all grown for market use. Surprising as it may seem, a large watermelon acreage is grown for turkey feed. T. A. Crowder, whose turkey ranch is located two miles west of Roseville, is perhaps the pioneer in the field of raising melons for turkeys. He states he never has a sick turkey when he feeds them melons, the melons acting as a tonic. The melon seeds are fattening and the turkey eats the entire melon, including the rind as a green. —F.K.H.

Rearing Experiment with Turkeys

The third year's results of the Michigan Experiment Station in this series of trials essentially confirmed previous findings. A 27 per cent protein mash ration containing ground corn and ground oats as the principal grains, and meat scrap, soybean oil meal, and dried skim milk as the principal sources of protein, with corn as a scratch grain, continued to produce thrifty turkeys with smooth, lustrous plumage and of excellent market quality and is recommended as an excellent all-purpose mash.

Substituting barley for corn in both the mash and grain rations gave practically as good results and may be safely recommended. A 25 per cent protein mash in which corn gluten meal replaced the dried skim milk failed to give satisfactory development and is not recommended. There was little, if any, economy or advantage in substituting an 18 per cent protein mash for the 27 per cent protein mash after turkeys were from 8 to 12 weeks of age.

Turkeys on the lower protein mashes consumed more mash and less grain than those on the higher protein mashes. All turkeys consumed a greater proportion of grain and a lower proportion of mash as they approached maturity.

A cobblestone turkey yard satisfactorily employed during the 1937 season is described.

Prizes for Boosting Turkey Consumption

As a means of assisting in the campaign for increasing consumption of eggs and poultry meat Allied Mills has been giving over part of the time on their weekly Wayne Feed radio program. Every Saturday some message such as the following is being broadcast on the Wayne Mail Box program on ten major stations throughout the middle west: "Eat lots of eggs, for eggs are the sunshine food"; "Eggs and poultry meat are healthful, delicious, economical. Eat eggs for richer living."

Furthermore, in order to stimulate greater interest, two of the weekly prize contests have been given over to boosting consumption. Just prior to Thanksgiving one contest was conducted in the manner of answering the following question: "Why should every American home

have turkey for Thanksgiving?" This proved to be a very popular contest.

Lee Fellows, Wallen, Mich., won the \$30.00 cash prize with this contribution: "It is the traditional Thanksgiving meat. Turkeys are the answer to our ills and help the farmer pay his bills."

Second prize of \$10.00 was paid to Mrs. Allen Cole, Palmyra, Ill., who answered as follows: "Every American family should have turkey for Thanksgiving dinner because it is the traditional food served by the Pilgrims at the first Thanksgiving in 1621. Modern observances take on more significance when carried out as originated."

Feed Prices

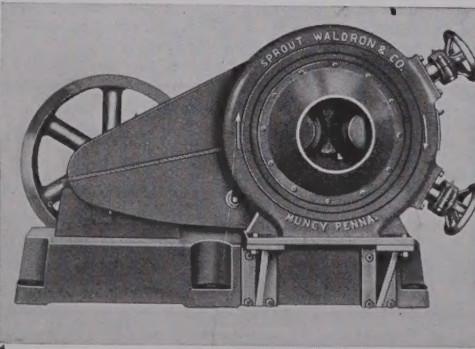
The following table shows the closing bid price each week for January futures of standard bran and gray shorts, cottonseed meal and spot No. 1 fine ground alfalfa meal, in dollars per ton, and No. 2 yellow corn and No. 2 yellow soybeans in cents per bushel:

	Minneapolis Spot		Kansas City	
	Bran	Midds	Bran	Shorts
Oct. 26	20.00	20.00	19.20	21.50
Nov. 2	20.50	20.00	19.85	21.60
Nov. 9	21.00	20.75	20.70	22.20
Nov. 16	23.25	23.00	20.20	21.60
Nov. 23	22.00	21.50	20.15	21.75
Nov. 30	22.00	21.50	20.45	21.90
Dec. 7	22.00	21.50	19.80	21.45
Dec. 14	21.00	20.50	19.65	21.25
Dec. 21	21.00	20.50	19.60	20.75

	St. Louis*		Chicago	Decatur
	Bran	Shorts	Soybeans	Meal
Oct. 26	22.25	23.50	84 1/4	23.50
Nov. 2	22.90	23.50	88 1/4	24.00
Nov. 9	23.85	24.15	95 1/4	25.00
Nov. 16	23.50	23.90	104 1/2	27.00
Nov. 23	23.10	23.25	100 1/2	28.00
Nov. 30	23.60	23.85	101 1/2	28.00
Dec. 7	23.00	23.10	95 1/2	28.00
Dec. 14	22.90	22.90	91	26.50
Dec. 21	22.70	23.00	93 1/4	....

	Cottonseed Meal		Kansas City	Chicago Corn
	Ft. Worth	Memphis	Alfalfa	Corn
Oct. 26	31.00	23.75	22.20	65 1/2
Nov. 2	33.00	25.50	22.20	64
Nov. 9	33.00	27.60	22.20	65 1/4
Nov. 16	34.00	28.50	22.20	68
Nov. 23	35.00	28.15	22.20	65 5/8
Nov. 30	36.00	27.35	22.20	65 1/2
Dec. 7	36.00	27.35	22.20	62 1/8
Dec. 14	36.00	26.50	22.20	61
Dec. 21	35.00	26.75	22.20	62

*St. Louis bran basis Chicago delivery; shorts St. Louis delivery.



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Tolerance of Chicks for Soybean Oil

At Iowa State College soybean oil was fed to 12 lots of 40-50 chicks in the following quantities: 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20 and 22 per cent of a basal mash diet. The mean weight of chicks at eight weeks did not vary significantly until the ration contained 10 per cent of oil after which a significant negative regression of weight was obtained.

No significant difference in weight of livers, volume of gallbladders, or histological sections of livers was obtained. The iodine numbers of composite samples of fat from chicks were 74.0 ± 0.64 for the control lot, 110.0 ± 0.64 for the 12 per cent lot and 120.0 ± 0.64 for the 22 per cent lot.

No odors or flavors of soybeans were detected in the broiled carcasses or fat residues of any of the chickens. Excessive moisture in the feces and a higher ether extract content of feces was noted from the oil fed groups.

Abnormal excessive molting beginning at the sixth week was noted in the lots fed more than 14 per cent of oil.

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GRAIN & FEED JOURNALS Consolidated

The Feed Triangle

By R. M. FIELD, Pres. Am. Feed Mfrs. Ass'n,
at Purdue Nutrition School.

It is always a pleasure to come before a group of agricultural college scientists because there is such a close relationship in the work that we are doing. I have always felt that in the business of feed manufacturing, and in thus designating it I go beyond the mere operating functions of production and distribution of feeds, there is a triangle.

One side of this triangle is the college scientists and research men who are actively engaged in developing new ideas and in making new discoveries in nutrition and the science of feeding.

The second side is the feed control officials whose task it is to interpret and enforce the state commercial feedingstuffs laws, thus protecting the people of their state from inferior and harmful products.

And the third side is the feed manufacturers who are taking the results of the research and study of nutrition and feeding conducted by the college scientists and applying that in the production of better feeds to be sold to the public.

It takes all three sides to make the triangle complete. No one or two can stand alone and so there is a community of interest between the three that binds us together in a spirit of helpfulness and cooperation to say nothing of friendship and mutual respect and admiration that has existed for many years and I think is growing as the years go on.

We have come to realize that we are integral and essential parts of the same triangle. We cannot pull one against the other, but we must work in harmony with mutual trust and confidence and with a willingness to share the results of our work for the benefit of the people whom we serve.

Frankly speaking, the fundamental purpose of our industry is the manufacture of feeds which will produce eggs, milk and meat most economically. That is a simple statement, but it covers the situation. We, as manufacturers, are not selling feeds. We are selling results. We are showing the farmer, the dairymen, the poultry raiser and the livestock raiser how he can get more and better results from a scientifically mixed and balanced feed product at a cheaper cost.

To do this we are dependent to a great extent upon you men of the colleges. You are continuously engaged in scientific research and development work, following up new ideas, making something out of what was apparently nothing, bringing new factors into the science of feeding and showing us how we can best do our job.

We are dependent upon the feed control official in that thru his inspection department and the enforcement of his law he will see that feeds that do not measure up to the proper requirements are barred from sale and that the manufacturer who tries to put out a cheap, inferior product, in many cases harmful to the animal, is shut out from doing business in his state. Again we have the complete triangle.

We have considered in our Association the problem of how we could work more closely with the other two sides of the triangle and we have made some progress.

WE APPOINTED A CONTACT COMMITTEE three years ago to work with the feed control officials and twice a year, or oftener, that com'ite meets with a corresponding com'ite from the officials and considers problems of mutual interest in the work of feed law enforcement. Much good has been accomplished and the problems of the manufacturers and the officials have been simplified by being sifted thru this joint-com'ite. At the same time the work of the joint-com'ite, and the close co-operation that has resulted, has brought all the manufac-

turers and all the feed control officials into a closer relationship on a friendly working basis, which both sides agree has been most beneficial.

A SCIENTIFIC SECTION.—We are now considering the establishment of a com'ite composed of the scientific and research men of our industry who will get together to discuss problems in their line of work and to further the common interest of the industry along the lines of nutrition and scientific feeding. This com'ite has not been formed, but it is in process of consideration and I believe before very long it will blossom out into what might be termed a com'ite on nutrition or a scientific section of the American Feed Manufacturers Ass'n.

No doubt some of you college men will be asked to come to meetings of this com'ite and address them on subjects of interest. There may even be joint meetings at which the research men of the colleges and the research men of our industry will sit down together, as our com'ite sits down with the com'ite of the feed control officials, and discuss mutual problems. There is wide field for beneficial work in this direction and I can see where the activities of this com'ite if properly directed, and I am sure they will be, will have the effect of bringing our two sides of the triangle—the college side on the one hand and the manufacturers' side on the other hand—into a closer and better relationship.

We have quite a few of your own people in our ranks today. We have drawn from the colleges many who were outstanding men in their profession and in the manufacturers' laboratories and on experimental farms there will be found scientific workers on nutritional subjects who have made their mark and have done research work of a high order in various of the agricultural colleges in the United States.

We feel that when your best men in the colleges and our best men in the industry get together and work out a program of even closer co-operation than exists today, it is safe to say that the results of this work will be extremely beneficial to all of us who make up this co-operative working triangle. Your principal work is research and development of ideas. Our principal work is an application of this research and development. Thru it all runs a thread of common interest and helpfulness by means of which we can be of assistance in what you are doing and you can be of assistance in what we are doing.

There is an unlimited field for a co-operative development program for the benefit of all of us and I am sure that when this program is inaugurated we shall have the wholehearted interest and support of the college men in co-operating with their brothers among the feed manufacturers. I have felt that in making this address I was in a measure speaking for the manufacturers of commercial feeds and by the same token to a certain extent for the dealers who are handling various lines of such feeds. I felt that my address was not directed specifically to these latter groups, but speaking for them to the college.

THE WORK OF THE COLLEGES in the field of nutrition is reflected in the production by manufacturers of better feeds and the dealers have the opportunity to sell these improved products to consumers. There is, therefore, a benefit to all concerned and the work of the colleges goes down the line in delivering to the consumer the best feed products that can be prepared and put on the market. Other speakers at this meeting are giving to the manufacturers and dealers here present valuable information and concrete ideas that may be used in their work. Knowing this I have felt that the best I could do would be to pay a most sincere tribute to the splendid work of the colleges in the field of nutrition and to outline, as I have endeavored to do, how all of us engaged in this work should be and are co-operating to the end that the consumer may receive the best product obtainable at the lowest possible cost.

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